BURMA GAZETTEER

MAUBIN DISTRICT

VOLUME A

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PREFACE.

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U TIN GYI,
Settlement Officer, No. 2 Party,
Thatôn.

th March 1930

TABLE OF CONTENTS.

CHAPTER I.

PHYSICAL DESCRIPTION.

CHAPTER II.

HISTORY.

CHAPTER III.

THE PEOPLE.

CHAPTER IV.

AGRICULTURE.

CHAPTER IX.

GENERAL ADMINISTRATION.

CHAPTER X.

REVENUE ADMINISTRATION.

CHAPTER XI.

LOCAL SELF-GOVERNMENT.

CHAPTER XII.

EDUCATION.

CHAPTER XIII.

PUBLIC HEALTH.

CHAPTER XIV.

Minor Articles.

BURMA GAZETTEER.

THE

MAUBIN DISTRICT.

VOLUME A.

CHAPTER I.

PHYSICAL DESCRIPTION.

General ; Boundaries ; General Description ; Rivers ; Floods ; Climate ; Rainfall ; Geology ; Fauna ; Flora.

General. Maubin is one of the five districts which form the Irrawaddy Division of Lower Burma. It has an area of 1,640 square miles and lies between 16° 30′ and 17° 25′ north latitude and 95° 15′ and 95° 55′ east longitude.

Boundaries. It is bounded on the north by the Henzada District, on the east by the Insein and the Hanthawaddy Districts, on the south by the Pyapôn District and on the west by the Myaungmya and the Bassein Districts.

On the north, narrow streams known as the Aingchaungyo, the Mayokha, and the Kanu separate Maubin from Henzada; on the east the large and navigable Bawle River forms the boundary with Insein ; the eastern boundary continues southwards along the Kattiyayegyaw and the Adun *chaungs* till the latter meets the large To River, which for a short distance continues as the boundary separating Maubin from Hanthawaddy. The southern boundary of the district leaves the Toe River just above Kyonmangai in the Kyaiklat Township and follows the course of the Tayaw *chaung* until it crosses over to the Pantabut River, which then forms the boundary for about four miles. It next follows a demarcated boundary across the country due west until it meets the Singu River, which, together with the Thaungtu and the Khamon *chaungs*, separate Maubin from the Kyaiklat Township of the Pyapôn District. On the west, the Yazudaing, one of the main branches of the Irrawaddy, along with the Shwelaung River forms the boundary between the Maubin and

Myaungmya Districts; the western boundary separating Maubin from Bassein continues along small and unimportant streams, some of which are often dry during the hot months of the year.

General Descriptions. The district forms a rather compact block of alluvial plain with the Irrawaddy and the To Rivers running down the centre and forming the chief waterways of the district. The district is approximately 54 miles long and 44 miles wide. It lies in the heart of the delta of the Irrawaddy. The stretch of alluvial plain is devoid of any striking feature to relieve the monotony of the paddy fields beyond the occasional green patches of cocoanut, bamboo and mango gardens to mark the sites of village lands. There are no natural eminences of any kind, nor are there any large expanses of inland water except small lagoons which dry up completely in the hot weather. The level of the land rises somewhat in the northern portions of the district, especially on the borders of the Henzada District, but elsewhere it is low and flat. During the rains the whole country lies submerged, and except in the vicinity of the Government embankments, where the land is a bit high, travelling by boat is possible in any direction.

The formation of the country is typical of that of the delta. The rim of the islands along the banks of rivers and streams is high and above flood level, while the interior is a saucer-like depression in which the drainage of the surrounding country accumulates. The land near the banks of rivers and streams is always high because the spill of the flood waters first deposits its fertilising element there before flowing away into the interior. This process of nature has, of course, been stopped in all the *kwins* protected by the Government embankments and the level of the land remains constant. The level of the lowest lands is said to have risen slightly but this may be due to the wash received from higher parts. In places where no embankment exists, as in the Maletto swamp area, the level of the land is rising annually, the deposits of silt being quite heavy. Near the villages of Leainsu and Kokkosu, where the spill of the Irrawaddy flood waters is allowed to flow inland unchecked, the level rises by as much as six inches to a foot each year, and lands which were practically unculturable ten years ago are now producing excellent crops of *mayin* and *kaing*. Renewal of fertility by silt deposits is, of course, out of the question behind the Government embankments but elsewhere, as in the unprotected areas of the Pantanaw Township, there is no doubt that the transformation which is taking place is characteristic of the

delta. Opinion is divided as to the rate at which the low lands rise in level but there is no doubt that the large area with has been rendered culturable since the last settlement, is due as much to the silting-up process that has taken place as to better drainage and better protection afforded by the construction of private embankments.

Rivers. The Irrawaddy which enters the district near Sagagyi, a small town on the extreme north, forms the main artery of communications and is therefore the most important river in the district. Its width varies greatly and at intervals broadens out into wide channels, enclosing large islands on which tobacco, maize, and beans are grown. These islands contain permanent villages but at times when the flood is abnormally high the people are driven to the upper floors of their houses. At Yandoon the Panhlaing River branches off from the Irrawaddy and meets at Mezali the Bawle River, the latter forming the eastern boundary separating Maubin from the Insein District. Between Mezali and Ngapyawgyun, a distance of 4 miles, the bed of the Panhlaing has silted up so completely that the route to Rangoon is now completely closed. Launches from Yandoon leave the Panhlaing at Mezali and go through the Bawle, Kokkowa and Hlaing Rivers on their way to Rangoon. Some 10 miles north of Maubin, the To or China Bakir branches off from the main river and flowing past Maubin leaves the district just south of the Twantè Canal. In its journey through the district it distributes its waters over four branches, the Pantabut, Maletto, Tani and Adun *chaungs*. Of these the Pantabut is the most important, as it forms the principal water route connecting Maubin with the delta towns in the Pyapôn and Myaungmya Districts. The To is important as being the chief steamer route connecting Rangoon, not only with the principal towns in the delta but also with places situated on the Irrawaddy River in Upper Burma. The main channel of the Irrawaddy from its junction with the To, flows westward towards Shwelaung and then spreads itself into various branches finally emptying into the sea on the boundary of the Pyapôn and the Myaungmya Districts. The Shwelaung, an off-shoot of the Irrawaddy on the west, forms the southern boundary of the Pantanaw Township and with its affluents, the Pantanaw, Zayathlagyi and Thôngwa *chaungs*, drains the whole of the Pantanaw and Danubyu Townships. Two small streams which are important as forming the southern boundary of the district are the Tayaw and Thaungtu *chaungs* both of which are navigable throughout the year for boats and steamers of small draught.

Floods. But for the extensive embankments along the Irrawaddy, the To and the Pantabut Rivers, the greater part of the agricultural lands of the district would remain flooded in most years. In fact, cultivation could not have extended to its present limits but for the protection afforded by the embankments. The state of affairs before the bunds were constructed, may be gauged from the remarks of Colonel Horace Brown, Commissioner of Pegu, who in 1879 wrote: "At the present time, the whole of Maubin Island is a swamp producing nothing but myriads of mosquitoes and a few fish with a narrow fringe of garden land along the banks." Now there is little or no waste land left for further extensions in any part of the Island. In spite however of the protection afforded by the Government embankments, there are still considerable areas in the interior which are subject to excessive flooding.

The flooding of Danubyu Township on the western bank of Irrawaddy River is due principally to the silting up of old stream beds which in consequence fail to effect a quick drainage at flood time. The construction of the embankments naturally closed up all the former exits by which the drainage water of the interior *kwins* emptied itself into the Irrawaddy River and in consequence it had to seek fresh outlets in the direction of the Bawdi *chaung*, a large stream which joins the Pantanaw River just below the town of that name. This stream is not large enough to effect a quick drainage of the flooded areas and the result was to silt up rapidly many small stream beds through the stagnation of the flood waters. For instance, the Byinnya *chaung* which formerly drained the whole of the northern portions of the township is so much silted up that one arm after branching off to the west near Pyingatha Village, crosses the road to Kyontani at Kyontanaw and gets lost in the paddy fields. The other branch flows to the east and after crossing the road near Akyaw Village also gets lost as the former beds which connected these small creeks with the Bawdi are now completely silted up. The unsilting of these small streams has been recommended by some as a remedy for the excessive flooding of certain areas but it is doubtful if the good effects of such a scheme will last for any length of time unless the causes of silting are first investigated and removed. A point which is worthy of note, is the general complaint of higher flood levels since the township was last settled in 1904-05. The people attribute it to increased pressure of water in the Bawdi *chaung* ever since the embankments round Yandoon Island were completed. They say that the drainage has become

much slower and that the Bawdi now flows upstream for a short time when, owing to abnormal rises in the Irrawaddy River, a greater volume of water is diverted into the Pantanaw River from its northern openings. The fact that broadcasting has replaced transplanting in many areas under paddy seems to prove that there is considerable truth in the assertion of increased floods since the construction of the Yandoon Island embankments. In the Yandoon Township the flooding experienced in the lowlying areas to the north of the Panhlaing River is of a totally different character to that described in the Danubyu Towship. Here the flooding does not take place by slow degrees nor are the surface waters calm during floods. The influx of flood waters from the south through the Panhlaing River overflowing its banks, the frequent breaches in the small bund which exists between Sangin and Yanginsanya and the spill of the Bawle River on the east, all make this area a veritable sea during the rains, and so boisterous are its waves that small boats and sampans dare not cross from one village to another, unless the weather is calm. In the area south of the Panhlaing, the prevailing conditions are not dissimilar to those behind the protection of other Government Embankments, such as those in Danubyu and Maubin Townships. The flooding is due to waterlogging. In the Maubin Township the flooding experienced on Yandoon, Maubin, and Thôngwa Islands is characteristic of areas protected by embankments and differs from each other only in the degree of waterlogging to which the lands are ordinarily subject and their effect on cultivation. On Thôngwa Island no *tadaungbo* paddy can be grown although the surface of the flood waters remains calm. This is due to the fact that the drainage of the island is poor. This is indicated by the cultivation of such long-lived varieties of of paddy as *yosein*, *midanthwe* and *midon* which mature only late in January. The interior of the island forms a saucer-like depression in which the drainage of surrounding parts accumulates and the flooding is therefore severe. On Maubin Island the cultivation of the ordinary kinds of *kaukkyi* indicates that the flooding is never very severe. Flooding is caused mainly by the drainage received from surrounding higher ground and the Thaungtu *chaung* which flows through the middle of the island helps to prevent the lowlying parts from getting too deeply inundated. The only area which is deeply flooded consists of a few *kwins* round about Aheik and Chaungbyagyi Villages but even in these, the crops succeed in most years. In other parts of the island a successful crop of *kaukkyi* paddy can be raised

every year which shows that no part suffers from abnormal flooding. In the Pantanaw Township the area in the north enjoying the protection of Government embankments, though badly flooded, can be grown with both *tadaungbo* and *mokseik* paddy because the embankments prevent a serious rush of currents. In the south-eastern portion of the township the flood waters cover up the land quickly at each rise of the Irrawaddy and subside equally soon on the fall of the river, with the result that transplanting of paddy takes place several times during the year. Needless to say, the crops are of the most precarious description.

Climate. There is no great variation in the temperature. It never rises so high or falls so low as in many other districts. Even after several days of heavy rainfall there is no appreciable drop in the temperature. The heat experienced is characteristic of Lower Burma; a moist heat which increases in intensity as soon as there is a break in the rains. In the hot weather, winds keep the temperature down a great deal and except for a short spell in April, the temperature rarely rises above 100°. The average maximum and minimum temperatures registered in the month of April during the last decade were 100° and 75° respectively.

Rainfall. The rainfall is neither light nor heavy for a delta district. The average for the period 1908—27 for the whole district is 89·97 inches, the averages for Maubin, Danubyu, Yandoon and Pantanaw being respectively 94·46, 87·90, 90·80, and 86·71 inches. The heaviest rainfall recorded for the above period of twenty years was 121·46 inches at Maubin in 1919 and the lightest rainfall was 65·62 inches at Yandoon in the same year.

On the whole, the rainfall may be said to suit the cultivators well. It is heaviest in the south: though lighter in the north, it is not insufficient.

The following table compiled from the latest Settlement Report shows the number of rainy days and the rainfall in each year recorded at Maubin, Danubyu, Yandoon, and Pantanaw during the period 1908—27.

Years: (a) Rainy Days. (b) Rainfall.	1908		1909		1910		1911		1912		1913		1914		1915		1916		1917	
Stations.	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)
Maubin	128	94·02	130	91·12	101	75·92	129	89·67	117	81·37	115	94·89	124	115·12	118	90·02	125	102·86	115	85·01
Danubyu	127	78·66	125	79·49	108	73·44	128	106·56	107	74·49	112	82·92	122	99·74	135	93·39	120	82·50	115	87·07
Yandoon	132	108·12	129	87·80	103	74·11	124	95·47	1[illegible]1	86·80	108	80·90	119	107·81	122	99·83	112	87·10	105	74·31
Pantanaw ...	125	85·25	132	87·34	104	74·91	115	89·78	121	81·84	97	76·40	114	102·32	131	90·90	114	10[illegible]·94	111	75·79

Years: (a) Rainy Days. (b) Rainfall.	1918		1919		1920		1921		1922		1923		1924		1925		1926		1927	
Stations.	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)
Maubin	115	87·93	119	121·46	115	97·28	118	78·08	132	96·52	116	105·80	124	104·96	128	99·37	119	89·17	122	88·54
Danubyu	121	90·78	103	84·55	108	81·08	114	80·37	130	98·60	109	80·76	116	88·40	114	84·73	118	84·29	121	100·34
Yandoon	120	83·17	100	65·62	115	81·32	133	91·46	119	104·49	129	91·91	130	98·29	119	85·89	122	93·97	127	107·72
Pantanaw ...	116	71·34	97	74·71	116	83·60	115	84·26	128	96·14	124	88·75	124	80·81	109	92·33	133	103·81	120	91·96

Geology. The soil is alluvial and the geology is precisely similar to that of the west of Rangoon and the east of Bassein. With the exception of a patch of newer alluvium, that is the deposit thrown down by the existing Irrawaddy, the whole district consists of older alluvial clay of a very homogeneous nature differing mainly from the older clay of the gangetic basin by being less rich in lime but otherwise resembling it in general appearance and mode of deposition and arrangement. Under certain conditions of exposure and weathering it assumes an imperfect lateritic appearance superficially. This older clay rests on a considerable deposit of sand or gravel varying much with the locality. At Yandoon, at the top of the tide-way, this bottom bed consists of clean sand with a few small quartz pebbles sparingly dispersed here and there through it; and it is the presence of this under-bed sand which so greatly favours the abrasion of the channel of the Yandoon stream and is the indirect cause of the broad shallow just below the junction of that stream with the Irrawaddy.

Fauna. Before the British annexation the district was said to have been the home of tigers, elephants and numerous alligators but with the spread of cultivation these game animals have entirely disappeared. At present not even the wild pig and hog deer are to be found. Of other animals, the jungle cat and mongoose are to be found sometimes within large gardens but even these are becoming rare. The district is equally deficient in game birds. Whistling and cotton teal are found in marshes and on lonely spots in the Irrawaddy River but they are by no means plentiful. Snipe, both the pin and the fantail varieties, the imperial, blue and green pigeons are to be found scattered over the district. In the *jheels* and the long stretches of marshy swamp of the fisheries in the district, are to be found the Purple Coot (*menyo*), Cormorant (*dingyi*), Davison's Black Ibis (*kayusok*), Spotted-billed Pelican (*wunbo*), Grey and Indian Pond Heron (*byaing* and *byaing-auk*) and the Adjutant (*donzat*).

Snakes are fairly numerous, the most dreaded being the Russell's Viper (*daboia Russellii*) which infests the low-lying paddy fields at harvest time. The Banded Krait (*ngandawgya*, and *ngan-thangwin-sut*), the Cobra (*mwe-hauk*) and Hamadryad (*ngan*) are no less numerous and exact their toll of human deaths each year. Of the non-poisonous kinds the common Rat Snake (*lim-mywe*) and the Green Whip snake (*mywe-sein* and *mywe-sein-mishe*) are most common.

Many of the creeks and streams within the district

form part of fisheries and large quantities of fish are taken and sold fresh, smoked, dried or made into *ngapi*.

There are over thirty species of fish found in the district but the species which largely predominate are *ngapyin-thalet* (*Trichogaster fasciatus*), *ngamitchin* (*Labeo rohita*), *ngabat* (*Wallago attu, Bloch*), *ngayan* (*Ophiocephalus striatus*), *ngabyema* (*Anabus Scandans*), *ngathaing* (*Catla Buchanani*), *ngamyin* (*Pseudentropis Taakree*), *ngapa* (*Engranlis Kammalensis*) *ngakhu* (*Clarias magur*) *ngape-aung* (*Notopterus Chitala*), and ngagyi (*Saccobranches fomilis*). The *ngathalauk* (hilsa), *ngagyin, ngathaing* and *ngamyinyin* are found mainly in the Irrawaddy River.

The Botany of the district has been but little studied. Flora. The district possesses no forest and the only trees found growing near the edges of cultivation are the letpan (*Bombax malabaricum*), *pyinma* (*Lagerstrœmia flos reginæ*) and *pauktahni* (*Red agati*). Toddy and cocoanut palms abound as well as a large variety of fruit trees which include the mango, marian, and jack fruit. The bamboo and the plantain tree are no less ubiquitous.

Of the grasses and reeds found in the paddy fields the most common are *myebyit* (*Natthami-myetkon*), *myetkha, myetkalon, Thon-hmyaung, Khaya, Supadaung, Nyanbin, Boktaung* and *Padaw*. *Boktaung* and *Nyanbin* are confined to much flooded fields and both have to be eradicated after sowing by slashing at them with a dah. The *padaw* grass is most troublesome to growers of *tadaungbo* paddy as it tends to smother the crop just before the grains are formed. The *kaing* grass is of course found everywhere in lowlying parts and is the most difficult to eradicate. *Thetke* is found growing wild only in a few places in the northern parts of the district and forms a valuable crop as it is much used for roofing purposes. Mention must be made of the *daungsaba*, a species of wild paddy which grows in marshy places. The seeds are obtained by pushing a canoe into the bushes and beating out the tops with a long bamboo so that the grains fall into the canoe. This seed is used as a food by the poor and needy to supplement their food supply.

CHAPTER II.

HISTORY.

Early Period ; First Burmese War ; Second Burmese War ; Third Burmese War.

The area now comprised in the Maubin District appears Early Period. to have been little known before the Alaungpaya Dynasty. The population was scanty, the land being apparently considered to be of little potential value for the cultivation

of paddy or other crops that could be used for food. The district consisted of a vast expanse of swamp and jungle the interior being difficult of access and providing with its dense vegetation and its stretches of mud and water little attraction for the would-be settler and sower of paddy. There is little reference in Burmese chronicles to any portion of what is now the Maubin District, and information from other sources on matters of historical interest relating to the period prior to the advent of the British is likewise scanty. Apparently the population consisted of small bands scattered in hutments over the district, possessed of the barest necessaries of life, and dependent mainly on such bounties as Nature provided in the fish of the streams and rivulets and the produce of forests still secure from axes wielded for purposes other than domestic. Little is known of the district prior to the British occupation because little attention was paid to the question of profitably utilising an undeveloped tract in the days when the peasant could count all his needs on his fingers and could secure his ration of rice and salted fish without a liberal expenditure of time and energy.

It is possible to conjecture that the *Pyus* or other races akin to them were at one time inhabitants of the district. What is clear is that when the *Môns* (*Talaings*) spread over the country south of Henzada, they drove out or absorbed the earlier inhabitants and established themselves in the area which is now the Maubin District as over practically the rest of the deltaic region watered by the numerous branches of the Irrawaddy. It may perhaps be assumed that, strictly speaking, these dwellers of the backwoods owed explicit allegiance to no ruler at first, and lived and went about their daily business unnoticed and unhampered even during the whole period in which the Pagan Dynasty founded by Anawrata held sway over the greater part of the province. When, on the death of Narathihapate in 1287 A.D. that dynasty came to an end and the glory of Pagan departed "amid the blood and flame of the Tartar Terror" * the Talaing population of the district appears to have had little contact with officialdom.

By the time of Tabinshwehti's accession to the throne (1531), the population must have appreciably increased. Perhaps the attraction of the fisheries began to be manifest, and the prospects of re-claiming the marshy waste had become alluring on closer acquaintance ; so that the descendants of the old *Môn* immigrants deemed it to their benefit to stay where they were, and new settlers arrived on the scene to search for fish and establish ownership of as much land as they could till.

* Harvey's "History of Burma."

There is practically nothing of historical interest to record in regard to any portion of the district during the period for which the Toungoo Dynasty lasted (1531-1752). As king succeeded king, battles and massacres took place, and the Talaings of the district must have suffered heavily amid the disorder and chaos that prevailed as armed forces swept up and down the country. Alaungpaya rose at Moksobo in 1752 and, having won successive victories against the Talaings, ended his conquering march at Dagon which he captured in 1755 and named ရန်ကုန် (Rangoon), which signified the " End of Strife ". The district came within Alaungpaya's domain and remained under the successive rulers of his line till it passed into the hands of the British as part of the territory ceded under the terms of the treaty that was made on the conclusion of the Second Anglo-Burmese War.

Detailed information is available in connection with the events which took place in the district during the progress of the three Anglo-Burmese wars.

First Burmese War.

During the first Anglo-Burmese War * no resistance was offered to the British Army in this district as it exists at present except at Danubyu. Early in 1825 the troops advanced from Rangoon, the land column under the Commander-in-Chief moving up the valley of the Hlaing and the water column under Brigadier Cotton making its way to the Irrawaddy: Sir Archibald Campbell's march was unopposed, the Tharrawaddy Min, a brother of the reigning Sovereign who some years later ascended the throne after a successful rebellion, retiring as the British advanced. Maha Bandula, who had commanded Burmese armies in Manipur and in Arakan, threw himself into Danubyu which he strongly fortified ; the main stockade commanded the river and was protected by two others lower down. General Cotton's force arrived on the 7th March 1825, and having landed advanced in two columns to the attack. The first stockade was carried but the other two were defended with great obstinacy. Captains Rose and Cannon were killed and the greater number of the troops engaged killed or wounded. General Cotton thereupon withdrew his force and applied to the Commander-in-Chief for reinforcements.

Sir Archibald Campbell at once returned to Sa-rawa (Tharawaw) and passing his troops across the Irrawaddy, an operation which took five days, established his

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* The account of the First Burmese War is taken almost unaltered from the British Burma Gazetteer, Volume II, page 798.

headquarters at Henzada. After a two days halt, during which a detachment under Colonel Godwin was sent against the Kyee Wun Gyee, whose troops escaped before the British came across them, Sir Archibald Campbell moved down the right bank to Danubyu, where he arrived on the 25th March. Batteries were at once erected, the works being greatly impeded by sorties of the Burmese and on the 1st April the enfilading batteries, and on the 2nd the breaching batteries, opened fire. Very shortly the Burmese were observed to be in full retreat and an advance being ordered the stockades with a large quantity of stores and guns were captured. Maha Bandula had been killed the day before by the bursting of a shell while he was inspecting the works. The united columns then continued their advance without any opposition. At Tarokmaw envoys came in asking the British Commander to halt and enter into peace negotiations, but Sir Archibald Campbell declined to stop the advance.

Second Burmese War.

During the second war * Danubyu was undefended but after the occupation of Prome one Nga Myat Htoon, an *ex-thugyi* of a small circle, succeeded in collecting a body of men and openly defied the British, capturing their boats passing up and down the river, ravaging the country, pillaging every village which furnished fuel to the steamers, driving off thousands of people and cattle and rendering all regular Government impossible. Captain Hewett, I.N., surprised and defeated a large body which had collected in Danubyu, and in the early part of January 1853 this town was again attacked and the Burmese driven out, but the British force on moving into the interior was forced to retire. On the news reaching Rangoon in February 1853, a force, of which Captain C. B. Loch, C.B., R.N., assumed command, consisting of 158 seamen, 62 marines, 300 men of the 67th B.N.I., under Major Minchin, with two three-pounders from E.I.C., steamer "Phlegethon," was despatched to operate against Myat Htoon. Landing at Danubyu the column advanced into the jungle towards the chieftain's stronghold but were taken in flank and driven back, Captain Loch, mortally wounded, being among the first to fall. "Out of 225 Europeans who advanced to the attack six were left dead on the field and 53 were wounded. The loss of the Bengal Regiment amounted to five men killed and 18 wounded: in all 82 casualties ".† At this period

* The account of the Second Burmese War is taken almost unaltered from the British Burma Gazetteer, Volume II, pages 792-793.

† Laurie's "Pegu".

Captain Fytche, who had been appointed to the civil charge of the Bassein District and had arrived from Sandoway in January, almost unaided by the weak military garrison in Bassein, but well supported by a small and valuable force of seamen furnished by Captain Rennie from the "Zenobia" and "Nemesis," was occupied in clearing his district of the marauding parties, remnants of the Burmese forces, which still infested it. The result, partly of this second repulse of a British force and partly of Captain Fytche's operations in the south, was an immediate accession of strength to Myat Htoon. Sir John Cheape who was commanding in Prome now descended the river in person in command of a force composed of 200 men of the Royal Irish under Major Wigston, who had distinguished himself in the operations in the neighbourhood of Prome, 200 men of the King's Own Light Infantry under Captain Irby, a company of the 67th B.N.I., under Captain Hicks, 200 men of the 4th Sikh local regiment under Major Armstrong, 70 sappers, two guns and some rocket-tubes, and landing at Henzada advanced against the Burmese but before coming across them made a flank movement to the eastward and striking the Irrawaddy at Zalun proceeded down the river to Danubyu. Here he was joined on the 6th March by reinforce ments from Rangoon consisting of 130 men of the Staffordshire Volunteers under Major Holdich, two mortars and some commissariat stores, and on the 7th the force advanced. In the meanwhile Captain Fytche, who had left Bassein with 90 seamen and marines, four guns and 2,000 Burmans and Karens and was moving on Myat Htoon from the south, by three different roads, came across and drove in his outposts on the 3rd but was subsequently forced to retire. From the 3rd to the 17th but little was done, the force under Captain Fytche being too weak to attack alone and Sir John Cheape finding greater difficulties in his way than he expected. On the 17th the two forces moved on towards Myat Htoon's position; Captain Fytche encountered little resistance but Sir John Cheape's advance was strongly though ineffectually opposed. Numerous breast-works had been thrown up and the Burmans fought well behind them. The works were at last carried and the enemy dispersed. The British loss during the expedition was severe, 12 officers and 95 men being wounded and two European officers, one Native officer and 18 warrant officers, non-commissioned officers and rank and file being killed. Myat Htoon himself escaped, but gave no more trouble and the country gradually settled down.

Third Burmese War. The period of the third Burmese war was marked, as elsewhere in the lower Province, by a general outbreak of dacoity and crime throughout the district. There was a total of 150 violent crimes in the year 1886, showing an increase of 99 cases over the total of the previous year. Dacoity and robbery showed each an increase of 39. Up to the end of 1885 violent crime in Lower Burma, although there was a good deal of fluctuation, may be said to have been on the decrease, but when the war with Upper Burma took place a great change occurred. In the beginning of 1886 the minds of the people were considerably excited with the annexation of Upper Burma and the news of the Shan rebellion in Shwegyin, which had taken place in December 1885. Men from Upper Burma and bad characters from Lower Burma kept the uneasy feeling alive with stories that *ex*-King Thibaw had not been taken prisoner and that a large force of Burmese, Shans and others was coming from the upper country to drive the English into the sea. After the paddy was reaped that year the turbulent spirits in the delta districts, in league with certain men from Upper Burma who gave themselves out as advance agents recruiting for the King's Army, were able to effect risings in all these districts. The following table shows the state of crime in 1886:—

Districts.	Dacoity.	Robbery.	Murders by robbers and dacoits.	Other murders.
Henzada ...	452	50	40	2
Bassein ...	220	...	15	14
Thôngwa ...	49	45	6	26
Tharrawaddy ...	527	...	20	...

In February 1886 a serious rising generally known as the Bogale Rising, took place in the Pyapôn Subdivision. The rebels attacked Bogale *Kin*, a small guard of water police, took possession of the muskets belonging to the guard, enlisted a number of villagers, ransacked Ywathit Village, and gaining more recruits and arms, returned to Bogale. Thence they set forth again, attacking a number of villages, and crossed into the Bassein District. They were pursued thereto and given no rest till a very small band was left and they were obliged to cross the Thayetmyo frontier at the end of March. The second rising started in the Wakèma Township a little later in the same month. The rebels originally numbered 15 and were under the command of one Nga Shwe Bo. They killed Maung Po

Ka, *Thugyi* of Labutchan Myauk Circle, who was collecting revenue at Thekke Village. Saying that they were fighting in King Thibaw's behalf, they went about plundering villages, collecting money and enlisting recruits. Passing through Bwetton, Kwingyi, and Chankanidaw, they arrived at Kyongon, where Colonel Pemberton appeared with a posse of sepoys just as a large number of villagers were on the point of joining them. The rebels fled on hearing the noise made by the approaching launch, but a few were arrested and tried. The third rising arose from among some of the worst characters in the second who had escaped arrest. They set out for Pakun to the east of the Irrawaddy. There was a determined attempt by eight men to get the arms in the Pakun Punitive Guard; these eight men by stratagem managed to get close enough to the sentry to cut him down; they then attacked the seven Indians who were asleep in the guard, all of whom they wounded severely. One subsequently died. The Indians defended the guard bravely and drove their assailants out, only one of the guard being lost. Several of these dacoits were wounded by the police, and one subsequently died. The rebels then crossed into the Danubyu Subdivision. Nga Paung, a leading spirit, taking the name of Shwe Lan Bo passed with his following into Zalun, Henzada, whence having been joined by Maung Ni and having obtained more recruits, he marched on Ataung. From there the rebels again made an entry into the Danubyu Subdivision. There they attacked Ingala and were able to plunder a few villages till they were finally suppressed.

CHAPTER III.

The People.

Population; Race; Talaings; Karens; Indians; Chinese; Density; Houses; Dress; Food; General Prosperity; Religion; Nat Legends; Pagoda Festivals.

The population at each of the last three censuses is shown below:— Population.

Race.	1901.	1911.	1921.
Burmese	196,148	205,154	225,770
Karens	73,112	86,160	88,393
Indians	8,102	10,384	12,291
Chinese	856	2,132	2,387
Others	1	1,243	1,265
Total ...	278,309	305,073	330,106

Race.	1901.	1911.	1921.
Percentage of increase ...	...	9·6	6·4
Urban	24,412	27,217	38,525
Rural	253,897	277,856	291,581
Agriculturists ...	168,195	196,365	221,962
Non-Agriculturists ...	110,114	108,708	108,144

It will be seen that the population has been growing steadily and that the bulk of it continues to be rural The area of rich and easily worked land reclaimed by the embankments proved a great attraction to immigrants from Upper Burma and the more densely populated areas of Pegu and Hanthawaddy. The original inhabitants whether Karen, Burman or Talaing were also not slow to take advantage of the new conditions and to carve out large holdings for themselves but the large population which poured into the district from places less favoured in regard to fertility of soil and excellence of communications, far outnumbered the original inhabitants of the place and the population of the district went up by leaps and bounds from 139,498 in 1881 to 210,735 in 1890 or an increase of 55 per cent. The next decade still saw a further increase, the population increasing by 30 per cent to 278,309 in 1901. These twenty years saw the rapid disappearance of the flooded waste of thick tree jungle, infested with elephants, tigers and other big game and its replacement by a treeless plain of paddy cultivation. The increase since the year 1901 has been slow, which may be accounted for by the fact that all the available waste had been taken up for cultivation and the tide of immigration practically stopped. The census of 1911 showed an increase of 9 per cent while that of 1921 showed an increase of only 6 per cent. Only waste areas too flooded to be taken up except by the most speculative of cultivators now remain.

Race. Burmans form the great majority of the villagers but Karens are found almost everywhere in the district. The original inhabitants were mostly Talaings who lived by working the many fisheries in the district while the Karens cleared the jungle and cultivated the higher lands along the river banks. Much of this was garden land, the level being raised for the purpose by irrigation channels dug from the main river with a view to bringing in the silt during the flood season. There are Indian shop-keepers,

money-lenders and labourers in many villages. The Chinese are also scattered about, most of them being shop-keepers and money-lenders.

The district appears to have originally belonged to the Talaing Kingdom of Pegu. After Alaungpaya's conquest of the country in 1755 the Mon tongue was fiercely proscribed. The original Talaing or Mon population of the district has been gradually absorbed by the influx of the Burmese population from all parts of Burma and at the last census of 1921, only 236 persons were returned as of Mon origin. As a distinct race the Talaings have entirely disappeared and the majority of the inhabitants call themselves Burmans. Talaing

The Karens of this district are as a rule agriculturists. There are both Sgaw-Karens and Pwo-Karens, and together they number 88,393, making up nearly 27 per cent of the whole population. The Pwo-Karens predominate, their number being 59,485 in 1921. The last census showed that 11,281 Karens were Christians, 6,905 from amongst the Sgaw-Karens and 4,376 from Pwo-Karens. The rest of the Karens were Buddhists, excepting 446 persons who were classed as Animists. Karens do not amalgamate well with Burmans. They prefer to live in separate villages. Those cultivating the riverine kwins behind the Government embankments live in solidly built houses and appear to be well off. As a rule the Karens live in large homestead plots of their own surrounding their houses with mango, cocoanut plantain and other fruit trees. They have strong family and racial ties. Karens.

There has been a gradual increase of Indians They are mainly engaged in petty trade, in money-lending or as the crew of gigs and are also employed as sampanwallas, dhobies and bhisties. A certain number, mostly Chittagonians are engaged in tobacco culitivation and cattle-breeding on the east bank of the Irrawaddy below the village of Sangin and have acquired land of their own. Indians,

In the southern parts of the Maubin Township, Tamil Indians are to be found engaged in paddy cultivation, having acquired a considerable area of lowlying lands which the Burmans have given up as not profitable enough to work. Roving bands of Indians are to be found in the southern parts of the district, engaged during the harvest season in reaping paddy. They are also employed as labourers in doing all the earthwork for the Burman cultivator.

The Chinese number 2,387. Most villages of any size have a Chinese shop-keeper. He supplies the necessary Chinese.

articles of food, clothing, and farm implements to the residents and also gives them loans, generally at heavy rates of interest. Many Chinese are engaged in paddy-broking, in the course of which business they furnish "sabape" loans to cultivators.

Density. The density of the population according to the last three censuses is shown in the following table :—

—		1901.	1911.	1921.
Maubin Township.	Area in square miles	484	511	509
	Population	72,979	79,608	89,502
	Density per square mile.	151	156	175
Yandoon Township.	Area in square miles	330	326	340
	Population ...	57,923	61,872	72,126
	Density per square mile.	176	189	212
Pantanaw Township.	Area in square miles	483	507	501
	Population	62,374	71,700	81,238
	Density per square mile.	129	141	160
Danubyu Township.	Area in square miles	305	304	290
	Population	85,033	91,893	87,240
	Density per square mile.	279	302	300
Density per square mile for the whole district		168·8	185·1	200·3
Occupied area in acres		226,700	446,201	502,136
Density per acre of occupied area ...		1·23	1·46	1·52

The following tables show by townships the growth of the population since the year 1881. The comparison is interesting and shows the enormous development which took place on the construction of the embankments and the consequent influx of population to work the large areas of waste land which had been reclaimed :—

Township.	1881.		1891.		1901.		1911.		1921.	
	Population.	Density.	Population.	Density	Population.	Density.	Population.	Density.	Population.	Density.
Maubin	19,257	89	48,474	93	72,979	141	79,608	156	89,502	175
Yandoon	36,131	154	58,857	178	57,923	175	61,872	189	72,126	212
Pantanaw	40,410	82	48,231	98	62,374	129	71,700	141	81,238	160
Danubyu	42,700	140	60,673	195	85,033	279	91,893	302	87,240	300

Danubyu is the most thickly populated township having doubled its population within the forty years preceding the census of 1921. Its density per square mile in 1881 was 140 but rose to 195 in 1891, 279 in 1901 and 302 in 1911. During the ten years ending 1921, the density was reduced to 300 persons per square mile. The decrease of population was due partly to the transfer of Yelegyun and Setkawgyun Islands to the Yandoon Township and partly to the emigration to the newly cleared lands in the Bogale township of the Pyapôn District and the reclaimed areas behind the Government embankments on Yandoon Island.

Yandoon ranks next with a density of 212 persons to the square mile. Its population has also doubled itself within the same period but it received a set-back in the interval between 1891 and 1901 when a decrease of 934 persons was recorded. For the whole township excluding the Yandoon Municipality, the density rose from 116 to 137 but this was set off by a substantial reduction in the population of Yandoon Town which decreased from 20,035 to 12,779 inhabitants, due, it is said, to the killing of the *ngapi* trade on the opening of the railway to Mandalay. By 1911 the population rose to 61,872 or 189 persons per square mile, an increase of 7 per cent. The construction of the embankments round the Island of Yandoon, resulted in a large influx of population and the density in 1921 rose to 212 persons per square mile, or an increase of 16 per cent. The increase was specially noticeable in the large area of reclaimed land which now constitutes the present Government estate. The stream of immigration was mainly from the more densely settled portions of Danubyu and Maubin Townships.

The population of Maubin township shows a steady increase since 1881, the population having quadrupled itself at the last census. The density rose from 39 persons per square mile in 1881 to 93 in 1891 and to 141 in 1901. The rapid growth of the population during these two decades is mainly due to the attractions presented by the rich delta area reclaimed by the Government embankments. The rapidity of this growth may be gauged from the fact that though Mr. Mathew's settlement took place only five years after the construction of the new embankments, he found no less than 75,700 acres of newly cleared land. Its density in 1921 was 175 persons to the square mile. In reality the population in the Maubin Township is even more dense than in Yandoon. If the thinly populated area of marshy swamp in the Maletto and Tani Circles, consisting of nearly 181 square miles is deducted from the calculations, it will be found that the density of the rest of the township

is even 246 persons to the square mile, which shows that in the cultivated portions at least, the density ranks only second to that of Danubyu.

The density of Pantanaw Township is 160 persons to the square mile and is the lowest for the district. Pantanaw has always been a township where the interests of fisheries predominate and cultivation possesses little of its attractions to the pioneer in search of new lands to work. The large expanses of low land while offering excellent fish-breeding grounds for the fisherman, are practically unculturable, or at best, give only a poor crop. The western portions of the township in which most of the valuable fisheries are situated are the most thinly populated and villages are separated from each other by large areas of waste land which as yet cannot be brought under cultivation.

Houses. In the embankment protected areas, many of the houses are built of wood with corrugated iron roofing, teak walling and *pyinkado* flooring. Such houses are occupied mostly by rent receiving landlords and a small percentage of the owner worker and the tenant class, the rest of the population being content with a modest structure of bamboo and *thatch.* The *wabo* bamboo is largely used for the posts of houses and lasts two or three years. *Thetke* is much used in the northern villages and lasts but a year. The *wagat* is seldom used for roofing purposes. The use of *dhani* is confined mostly to the villages bordering on the Pyapôn District. Away from the embankments the latter type of house is most common, the exception being the Chinaman's store which is usually built of more substantial materials than the rest.

Dress. The dress usually worn by the mass of the people consists of a longyi and a jacket, both made of cotton, the product of the mills in India or in Europe. Silk clothes are worn only on festive occasions. The *tamein* (divided skirt) as an article of female dress was never in vogue in Lower Burma and is never seen. Home made cloths for coats and blankets are seldom found as the handloom has practically disappeared from village life. In the flooded tracts where planting has to be done in deep water, the women defy the leeches by donning Shan *baungbis* and tying them at the ankles with a tape.

Food. Rice is the staple food grain. The average annual consumption of unhusked rice is about 20 baskets per adult. *Kaukkyi* paddy is invariably kept aside for home consumption. The variety much preferred is a soft palatable rice known as *sabanet* but except in the southern portions of the district, where this variety can be grown, *kaukkyi* is mostly

consumed. *Ngasein* paddy is eaten only by the poor and needy. Most cultivators put down a few plots of *kaukkyi* paddy for home consumption. Where the soil is not suitable for its growth the cultivator sells all his grain and buys *kaukkyi* to meet his requirements for the year. Fresh fish and prawns are the principal animal food consumed. Both are plentiful and cheap, as the district possesses numerous streams which form part of fisheries. In the rains, fish can be obtained free by merely foraging in the nearest stream. The islands on the Irrawaddy River and the many *myenu* formations along its banks provide sufficient vegetables to meet the needs of the people. Sesamum oil is consumed only by the well-to-do, the ordinary cultivator being content to use the groundnut oil imported from India. *Pegyi* and other beans are consumed to a less extent than in the neighbouring district of Pyapôn. The usual diet of the field labourer consists of a dish of rice with fish curry and *ngapiye*. *Hingyo* or vegetable soup is often provided to wash down the food while the many kinds of herbs found growing in the fields provide the necessary *tosaya* for his *ngapi*. Beef, mutton and pork are rarely obtainable except when one of the large towns is visited on business. Tobacco and betel are much used all over the district as both are easily obtainable locally The *sebawleik* is not smoked so much as the locally-rolled cheroot made of the tobacco grown near Danubyu. The common labourer has however to be content with the tobacco leaf provided by his employer while out working in the paddy fields

General prosperity.

The district is more prosperous at the present day than it has been in the past. The harvests have generally been good for a whole decade or longer and land values have been rising steadily. After the paddy has been disposed of to brokers on the threshing floor, the cultivator finds himself left with a little surplus which enables him to secure such amenities of life, and provides him with such amusements, as his ancestors could ill afford in their time.

On the whole the standard of living is much higher in tracts where the lands are protected from flooding by embankments. There is little difference between Burmans and Karens in the standard of living in the villages situated along the embankments. Well built wooden houses with corrugated iron roofs are increasing in number and village streets are frequently paved with bricks and barber's shops and pawnshops are not uncommon in the larger villages. Most of the villages boast of one or two Indian or Chinese shops at which aerated waters, biscuits, sardines, and

condensed milk may be obtained besides the usual requirements of food and clothing which the ordinary jungle Burman needs. The Chinaman usually gives out his wares on credit and at the end of the harvest collects the grain which his debtors give him as *sabape*. In the embankment protected tracts signs are not wanting that the standard of living is high and that the people enjoy a higher standard of comfort than in the old days. If the possession of an electric torch in the hands of the cultivator is considered a necessity and not a luxury in these days, then the people are certainly not poorly off if one might judge from the multitude of torches existing in each village. In the flooded tracts a lower standard of living prevails. This is probably due to the soil being less fertile and though the villages lack the substantial comfort of those in the embankment-protected tracts the people cannot be said to stint themselves of the necessaries of life. The numerous small streams provide them with excellent *ngapi* and fish and so long as there is sufficient *wunsa* paddy stored, the cultivator has nothing much to worry about. In Pantanaw Township every household gets its supply of good *ngapi* free by merely baling out some hollow or small creek.

Religion. According to the census of 1921, Buddhists number 302,862 or 91·75 per cent of the entire population. Christians number 11,984 or 3·63 per cent. Hindus come next with 6,833 or 2·07 per cent and Mahomedans are close behind with 6,001 or 1·82 per cent. The total of Animists is 1,736 and of *others* there are 690. The returns show that the Buddhist religion is predominant.

***Nat* legend.** There are few legends concerning *nats* and other spirits in the district. Mention is made in villages, as also in towns, of the usual guardian spirits that look after villages, towns, trees, forests, and similar places, but the legendary lore relating to their antecedents and their activities is obscure. Their authority is accepted without question and their aid is invoked by persons who are anxious to avoid mishaps while in their domain.

According to a tradition which appears to be in fairly wide circulation, there is situate in the Pantabut *chaung* a *thaik* that is, a place where buried treasure exists, guarded by spirits. These are called *oktasaungs* and their watchfulness is proverbial. To break their resistance, to force an entry through to the treasure, and to return unscathed loaded with spoils is the problem that besets the would-be explorer; and that problem, attended, as it is, with risks and hazards manifold, is one which the mere mortal, even if endowed with the stoutest of hearts, would not ordinarily

venture to tackle. Treasure hunters, however, exist anywhere on the surface of the earth, and they have uncommon store of tenacity. There are men who, with the craft, the ingenuity, and the dare-devilry that is characteristic of their kind, are said to wander about the country planning excursions into some *thaik* or other that might promise rich booty in the shape of nuggets of gold and precious stones. The *saya* who leads an expedition into such wondrous regions must be endowed with occult powers which will cower the spirits and place them under subjection. If successful, he may return with priceless treasures, but if unsuccessful, his life may be forfeit as a penalty for a fruitless quest.

The Shwegyobyu-Mulagè *thaik* in the Pantabut *chaung* takes its name from Shwegyobyu and Mulagè, who were brother and sister, and were *oktasaungs* in charge of an enormous quantity of valuable treasure. According to a popular legend, there was once a Karen named Nga Pu who used regularly to get a quantity of treasure from the couple. Nga Pu was addicted to drink, and on it he would promptly waste what he had brought from the *oktasaung* couple. They at last stopped the gifts, thereby arousing his wrath. The enraged man set forth in search of a *saya* for an assault upon the *thaik*. He found the Kawkadut *Saya*, a resident of Setkaw, who was willing to help him. The *saya* attempted a raid, but was repulsed, the brother and sister being more powerful than he. Thereupon he enlisted the aid of a famous *thaiksaya* of Prome called Thalaya. Thalaya succeeded in causing the door of the "thaik" to open, by the magic power of his *se-kyein-lone* (wand). Thalaya went inside the place leaving the Kawkadut *Saya* outside with his *se-kyein-lone.* The Kawkadut *Saya* seeing that it was really the *se-kyein-lone* that had power to cause the door to open, took it for himself and fled, leaving Thalaya to his fate. Thalaya was shut inside and he lost all consciousness. When he came to his senses four or five days later, he caused a spirit to take the shape of a butterfly, to wing its way to his brother Thabaya at Prome, and to tell him of his plight. Thabaya recovered the *se-kyein-lone* from the treacherous Kawkadut *Saya*, hied himself to the *thaik* and caused the door to open again. But alas ! seven days had passed, and his brother Thabaya had himself become an *oktasaung* in place of Mulagè, who had secured his release. And so Thabaya had to return without success from a "thaik" now guarded by his brother. And the treasure remains safely embedded to this day. "Thalaya We", a strong

whirlpool between the villages of Pantabut East and Pantabut West, which perhaps affords a clue to the whereabouts of the treasure that lies so secure from fortune hunters, sends up a loud, ominous roar all through the rains, spelling destruction and woe to boatmen who heed it not.

U Shin Gyi, the "Lord of the brackish waters", is held in awe by a large number of people, cultivators, fishermen, and others. It is usual to make offerings to him when there is illness in the family or when it is desired to avoid or escape from impending ills and dangers. The legend which relates how he became a *nat* is given in Chapter III, Volume A, of the Gazetteer for the Syriam District.

Pagoda Festivals.

Below is a list showing places where important fairs or festivals are held, the dates (according to the Burmese Calendar) of such fairs or festivals, their locality, and the number of people who may be expected to be present :—

Places where fairs and festivals are held.	Burmese date on which they are held.	Localities in which they are held.	Number of persons expected to attend.
Ma-ubin Township.			
Shweponmyin Pagoda.	12th Lazan to 3rd Lazok of Thadingyut.	Ma-ubin ...	1,000
Shweponmyin Pagoda.	12th Lazan to 8th Lazok of Tabaung.	Ma-ubin ...	1,000
Pyelonchantha Pagoda	13th Lazan to 1st Lazok of Tabaung.	Thutegon village.	500
Pawdawmu Pagoda.	8th Lazan to 1st Lazok of Tagu.	Ma-ubin ...	1,000
Setkyathiha Pagoda.	12th Lazan to 2nd Lazok of Thadingyut.	Ma-ubin ...	500
Setkyathiha Pagoda.	11th Lazan to 4th Lazok of Tazaungmon.	Ma-ubin ...	500
Pantanaw Township.			
Shwemyindin Pagoda.	10th Lazan to 1st Lazok of Tabaung.	Aukywa village.	3,000
Theingyi Pagoda	13th Lazan to 1st Lazok of Tabodwe.	Pantanaw ...	600
Tawadeintha Pagoda.	4th Lazan to 10th Lazan of Tabaung.	Pantanaw ...	500
Mingayu Pagoda	12th Lazan to 15th Lazan of Tawthalin.	Mingayu Village.	2,000
Myatheindan Pagoda.	13th Lazan to 3rd Lazok of Tabodwe.	Sinlangvi Village.	500

Places where fairs and festivals are held.	Burmese date on which they are held.	Localities in which they are held.	Number of persons expected to attend.
Yandoon Township.			
Shwebentha Pagoda.	13th Lazan to 1st Lazok of Thadingyut.	Yandoon ...	500
Atulamarazein Pagoda.	13th Lazan to 1st Lazok of Tazaungmon.	Yandoon ...	500
Ngamyethna Pagoda.	13th Lazan to 1st Lazok of Tabodwe.	Ngamyethna Village.	500
Mohok Pagoda	13th Lazan to 1st Lazok of Tabaung.	Yandoon ...	1,000
Danubyu Township.			
Kyaikkalunmun Pagoda.	13th Lazan to 2nd Lazok of Thadingyut.	Danubyu ...	1,000
Myakyaikpan Pagoda.	13th Lazan to 2nd Lazok of Tazaungmon.	Kyauktaing village.	500

CHAPTER IV.

AGRICULTURE.

Condition in pre-annexation days ; Progress ; Occupied and fallow areas ; Areas under various crops ; Rice ; Crops other than rice ; Disappearance of old and introduction of new staples ; Description of soils ; Suitability of climate for Agriculture ; Extent of fallowing and liability to crop failure ; Deterioration of soils ; Weeds ; Crop Pests ; Methods of cultivation, Rice ; Flood resisting varities of paddy ; Agricultural customs ; Agricultural implements ; Manuring ; Crops other than rice ; Gardens ; Kaing crops ; Tobacco ; "Thin" (Clinogyne Dichotoma) ; Hired Labour ; Disposal of agricultural produce ; Method of sale and transport ; Paddy loading centres ; Cattle ; Hired and sale of cattle ; Grazing grounds ; Diseases and mortality amongst cattle ; Ponies, goats and pigs ; Individual ownership of land ; Area owned by agriculturists and non-agriculturists ; Area sold and sale values ; Mortgage values ; Tenancies ; Condition of tenants ; Rental values ; Embankments ; The Irrawaddy Embankment ; The Maubin Island Embankment ; The Sangin

Sagagyi Embankment; The Thôngwa Island Embankment; The Yandoon Island Embankment; Private Irrigation and Protective works; The Sangin-Yanginsanya Cultivators' Embankment; The Kyonton-Thayetngu private Embankment; The Pyalin Embankment.

Condition in preannexation days.

The records show that prior to the occupation of the British, the district supported only a small population engaged mostly in the fishing industry. Small agricultural villages existed here and there along the banks of the main streams but the bulk of the population consisted of fishermen, boatmen, boat builders and wood-cutters. The neighbourhood of these villages was generally cleared of forest and there was little need to cultivate more than was sufficient to provide the necessary paddy for home consumption. Paddy was worth about 10 to 15 ticals of silver per 100 baskets in these days and except for barter, it had little value for purposes of trade. The interior of the country was covered with dense forests of such trees as the *kanazo*, *myinka* and *lamu* interspersed with long stretches of marshy waste, the home of innumerable tigers, elephants and crocodiles. It is only since the annexation that the district has become an agricultural one giving employment to about 66 per cent of its population.

Progress.

The price of paddy in 1850 was Rs. 12 per 100 baskets and Rs. 15 in 1851 but with the security of life and property following British rule, the price of the grain quickly rose to Rs. 35 in 1853 and sufficient inducement was thus offered to grow more paddy. The next twenty years saw a steady increase in the area under cultivation which must have been about 20,000 acres at the time the Suez Canal was opened in 1869. During the few years succeeding this event there was an unprecedented rise in the rate of expansion and in 1871-72, according to *thugyis'* measurements, which must be taken as conservative, the area under occupation was 53,209 acres. The expansion was the result of the increased exports of Burma rice since the Canal was opened to traffic but there can be no doubt that the district also owes a great deal to the construction of the embankments with regard to the rapid clearing of the flooded waste which had hitherto defied all efforts to cultivate. The construction of each embankment was marked by rapid increases in the area under occupation and a noteworthy feature was the great influx of a land hungry population from various parts of the province, all bent on extending their cultivation into the available waste. Just after the Ma-ubin Island Embankment was completed in 1881-82, the occupied area was 100,383 acres but when a

regular settlement of the district was conducted by Mr. Mathews in 1889-90, the occupied area stood at no less than 261,514 acres. The extension of the Henzada-Zaluñ embankments to Danubyu in 1873-75 and to its present terminus opposite Pantanaw in 1883 gave a further impetus to the paddy grower of the Danubyu and Pantanaw Townships and much of the flooded waste was brought under the plough. The Thôngwa Island Embankment which was completed in 1897 contributed further towards the increase in the area under occupation which stood at 440,945 acres when the district was resettled in 1904-05, an increase of 72 per cent since the previous settlement. The next decade saw the construction of the last of the embankments, the one round Yandoon Island and with the introduction of a new species of *tadaunglo* paddy, which enabled all the deepest hollows to be brought under cultivation, it may be said that cultivation within the district has almost reached its limits and little expansion is to be expected in the future. In 1928-29, the area under occupation was 631,012 acres or an increase of 40 per cent since the last settlement.

The following table shows by townships the area under occupation within recent years :— Occupied and fallow areas.

Township.	Occupied area.	
	1904-05.	1928-29.
	Acres.	Acres.
Ma-ubin ...	153,335	203,652
Yandoon ..	90,356	130,974
Danubyu ...	113,367	138,134
Pantanaw ...	91,908	158,252
Total ...	448,966	631,012

The area fallowed in 1889-90 was 10,949 acres, in 1904-05, 285,570 acres and 30,059 acres in 1928-29. The area actually fallowed does not vary much from year to year but in years of heavy flood, a much larger area appears to be left fallow because the first sowings are entirely destroyed and there is no time for a second attempt. A thick growth of grass generally covers the fields which cannot be distinguished from those really left fallow during the year Unless a careful enquiry is made, the fact of its having been under paddy is never brought to light.

Area under various crops.

In the following statement, the average of the relative areas under each crop per 1,000 acres cropped of recent years is shown:—

Crop.	At settlement of 1904-06.	At settlement of 1925-28.	Average of Eleven years.
Rice	848	867	867
Cereals and Pulses ...	12	56	19
Oil seeds	4	4	5
Tobacco	11	7	10
Plantains	35	5	20
Coconuts	4	...	1
Betelnuts	2	1	2
Mangoes	31	29	21
Other orchards ...	13	7	30
Miscellaneous ...	16	24	15

The area under rice represents 86 per cent of the total occupied area of the district and this crop is the only one of real importance. Gardens occupy 5 per cent of the total area and the rest is devoted to the cultivation of miscellaneous *kaing* crops such as maize, beans, groundnuts, chillies and tobacco. Owing to the rise in the market value of paddy land, there is a tendency to convert many of the gardens into paddy land. Many of the old mango gardens have shared this fate as the trees are past their prime and the owner finds it more profitable to utilise them for paddy growing while the trees also provide fuel of some value. Maize and *pelun* have found considerable favour in recent years. The maize crop is exported to Rangoon and other large delta towns in the shape of green cobs and there is a considerable demand for this crop. The area under oil seeds is confined to groudnuts, sesamum being grown only in small patches to the extent of about 300 acres per annum. Plantains have practically disappeared with the construction of the embankments and most of the area under this crop is now confined to the southern portions of the Pantanaw Township where the soil is of an alluvial character.

Rice.

Unirrigated winter rice forms the one staple on which the entire agricultural population of the district depends. The paddy of the district falls under four heads, *viz.*, *kaukyin*, *kauklat*, *kaukkyi* and *mayin*. *Kaukyin* is grown only on the highest soils, mostly in the northern parts of Danubyu and Pantanaw Townships, and is reaped between

the 15th October and 15th November. The area under this crop is comparatively small and the crop is invariably reserved for domestic consumption. The varieties of *kaukyin* mostly grown are *Namathalay*, *Yodaya*, *Bangkok* and *Khunwa*. *Kauklat* paddy ripens about a month later than *kaukyin*. It is sown on all the middle levels in the district and is the principal crop of embankment-protected areas. The greater part of the area under paddy is sown with "*kauklat*" and the bulk of the grain is exported as "*ngasein*" which includes such varieties as "*letywesin*", "*maungnyo*". and "*kamakyi*". *Tadaunglo* paddy belongs to the *Kauklat* group and goes under different names such as, *yebwa*, *daiksaba*, *mokseik*, *mishe*, *sitpwa*, *ngaseinbyu* and *tadaungbo*. These varieties differ from each other only in their capacity to withstand excessive flooding. *Letywesin* and *maungnyo* are the two most popular varieties of *kauklat* paddy as they give high yields, and possess good weight, most samples weighing over 52 lbs. per basket of nine gallons. *Kaukkyi* ripens between the 15th December and 15th January and is grown mostly for home consumption or for the people of the embankment-protected areas who sell their *kauklat* crops and buy *kaukyi* paddy for their "*wunsa*" needs. The varieties mostly grown are "*midon*", "*midanthwe*" and "*sabanet*", the last being a dark grain which is considered more palatable and commands a higher price than other kinds. The area under *kaukkyi* is probably not more than 5 per cent of the total paddy crop of the district.

Mayin is planted in October just after the cessation of rains and is reaped about the month of February. It is not real *mayin* as known to Upper Burma agriculturists but it is similar to the crop known as "*gwamayin*" in the Bassein District. This is a concise expression for the crop which comes between the main unirrigated paddy reaped in December and the irrigated rice proper (*mayin*) reaped in the months of March and April. The area under *mayin* is confined to lands situated near the banks of streams or pools of water in the vicinity of island formations in the Irrawaddy River. In the southern portions of Yandoon Island near the villages of Kokkosu and Le-einsu tidal irrigation is resorted to in order to provide the necessary water to the paddy fields. The area under *mayin* was about 6,000 acres in 1928-29 but this area will no doubt expand with the silting up of the lowlying lands in the southern half of Yandoon Island.

Crops other than rice.

The banks of the main rivers and streams are lined with gardens of fruit trees, generally of mangoes, coconuts,

betelnuts and bamboos. A village site usually consists of a collection of small homestead plots of half an acre or more in which various fruit trees are to be found. The bamboo however predominates everywhere as its use for both walls and posts of houses makes it a valuable crop. Along the Pantabut, Panhlaing and the eastern banks of the Irrawaddy River are to be found large mango gardens but the trees are past their prime, and have deteriorated so much in output that many of them are cut down and sold as fuel. Owing to excessive flooding plantains and betelnuts have almost disappeared in the gardens lying between the Irrawaddy River and the Government embankments while the coconut trees are also fast deteriorating from the ravages of the rhinoceros beetle. Betel-vine cultivation on a large scale is to be found just above the town of Yandoon, the banks of the Irrawaddy River being lined with betel-vine gardens closely studded together for several miles. In other parts of the district the vine is cultivated in small plots within homestead plots for domestic consumption. The many islands in the Irrawaddy River grow a miscellaneous collection of *kaing* crops of which the most important are maize, tobacco, groundnuts, beans, yams, and brinjals, the last being found mostly on the banks of the Pantanaw River. The cultivation of chillies is important in the Pantanaw Township. "*Thin*" for the making of Burmese mats is much grown in the Pantanaw Township and forms a valuable crop. The plant thrives best in inundated portions which get a yearly renewal of silt. In other parts of the district "*thin*" is to be found growing in the semi-shade of garden trees but the plant seldom attains the size of those found in the southern portions of the Pantanaw Township "*Thetke*" grass which is largely used for roofing houses, is found growing wild in small patches on land which is too poor to produce any other crop. The "*thetke*" used in the district is however entirely imported from other districts.

Disappearance of old and introduction of new staples.

New varieties of paddy are being constantly introduced into the district. In 1905-06 Colonel Ormiston in his settlement report mentions the increase in the number of varieties from fifteen to fifty-eight but in 1927, no less than 147 varieties of paddy were found. Each tract of country has its own favourite kinds and probably the same variety has a different name in different localities or appear in strains which resemble each other closely or possess the same characteristics.

Of the numerous kinds of paddy introduced into the district during the last twenty years, the most noteworthy

has been the advent of the flood resisting *tadaungbo* paddy, which has enabled the cultivator to obtain a crop even in the deepest hollows The "*mishe*" or "*mokseik*" variety of paddy introduced into the district only a few years ago has proved to be the hardiest among the flood resisting varieties of *tadaungbo* and a large area of flooded land formerly considered unculturable has since been brought under the plough. The chief disadvantage of this kind of paddy is the presence of a large percentage of red grains which reduces its price considerably. A new kind of crop on island lands is the China Potato (*Pachyrhrizus Angulatus*), known as "*Sein-sa-u*". It is largely grown in the islands situated just above Yandoon. The crop is highly profitable if it can be sown early enough to produce the bulbs before the hot weather sets in. If the crop comes on the market late, there is little or no demand for it in the delta towns as the people shun it like poison when a cholera epidemic is raging. Many a cultivator has taken a boatload to Dedaye, Kyaiklat and Bogale in the Paypôn District to find that there was no alternative but to dump his cargo into the river before returning home.

The Agricultural Department has purchased some land for a seed farm just south of the town of Ma-ubin and better strains of paddy will no doubt be introduced into the district in the near future.

Description of soils.

Prior to the construction of the Government embankments, the banks of the Irrawaddy River were enriched yearly by the silt brought down from Upper Burma and this soil which is a mixture of silt and sandy loam, known locally as "*thenon*" is the most fertile in the district. The land lying adjacent to the embankments is therefore prized most by cultivators as the outturn is consistently high owing to the fact that the soil is retentive of moisture. Long breaks in the rains rarely affect its yield seriously.

Where the original banks are high, this fertile belt of country formed by the alluvial deposits of the Irrawaddy is confined to a narrow area about one or two kwins deep from the river bank, but elsewhere the silt has been spread over a considerable area, often two or three miles in depth from the river bank. No renewal of silt is naturally possible behind the Government embankments but in spite of this, the fertility of the "*thenon*" soil remains unimpaired though the lands have been continually cropped. The soil of the interior of the country, away from the embankments is composed of clayey loams of various colours and degrees of stiffness. The soil generally met with is a dark coloured rich loam overlying a sub-soil of stiff clay and

capable of producing excellent crops but for the obvious disadvantage of too copious a supply of water which either drowns the plants or retards their growth· In some parts of Ma-ubin Island, the soil if a stiff clay, sometimes overlying a stratum of sandy loam which causes the water to percolate away freely through the large fissures which form on the surface. The worst soil in the district is a stiff yellow clay known as "*myewa-myesi*" in which the paddy seedlings do not tiller well. Sandy loams are to be found interspersed amongst the "*thenon*" soils of the riverine *kwins*. It is rarely found in the interior. It is considered to be inferior in productivity as it fails to retain the moisture. These sandy soils are generally met with as distinct ridges running across the *kwin* from the river bank. Before the embankments were made, the people usually dug water channels to let in the silt laden waters of the Irrawaddy River into the interior *kwins* and it is along the banks of these old ducts that the ridges of sandy soil are to be met with. On the border of the Henzada District in the Danubyu Township, stiff clay soils, sometimes varied by an admixture of sand, produce poor results even in a year of good rainfall. These clay soils seem to deteriorate more quickly than admixtures of sand and clay.

Suitability of climate for agriculture.

The climate on the whole is very suitable for the cultivation of paddy. The rainfall is moderate and rarely exceeds 100 inches a year. The average for the past twenty-three years is only 89·42 inches and in only two years did it exceed 100 inches. A fair crop is always obtained even in spite of such adverse conditions as floods, deficient late rains or insect pests. The dimunition in outturn owing to these causes never amounts to anything like a calamity. Though the climatic conditions may be described as almost ideal for the cultivation of paddy, the district suffers a great deal at times from the effects of excessive flooding which is not merely due to the weather conditions prevailing locally but to the caprices of the season in the northern parts of the province which are reflected in the intensity and duration of the floods in the lowlying parts of the district. The only portions of the district which are immune from flooding are the areas lying immediately behind the protection of the embankments. Generally speaking a long break in the ripening showers of October would spell less fear to the cultivator than sudden and prolonged floods which either tend to destroy the standing crops or prevent him from making subsequent plantings to replace those lost. A good supply

of rain in October would mean a crop either normal or slightly above the normal, but on the other hand, a lack of it would rarely affect the standing crops so much as to justify the use of the word failed Failure from want of rain is unknown except in the late planted area lying to the north of the Panhlaing River in Yandoon Township.

Extent of fallowing and liability to crop failure.

The fallow area of the district is not large, the yearly average for the years 1910-11 to 1927-28 being only 37,357 acres or 7 per cent of the total occupied area. The average area failed during the same period is 36,468 acres.

Fallowing is seldom done in order to provide grazing for the cattle. The usual reason for the fallowing is excessive flooding at the time of ploughing or sowing. In many cases the fallowing is the result of crop failures, the earlier sowings having been destroyed by the rapid rise of the flood waters. The district possesses large areas of lowlying land which is ploughed up in the hot weather and sown with paddy before the monsoons begin. If the flood waters reach the *kwin* before the young seedlings have established themselves, the crop is totally destroyed and the land remains as fallow since no second sowing is possible. Much land in the lowlying portions of the Pantanaw Township is also shown as fallow on the maps because the owner does not entirely relinquish possession, the land being cultivated in patches to suit the flood conditions of the year. In many cases the application of the two-anna fallow rate encourages the cultivator to retain possession of these flooded holdings in the hope that one day the conditions will improve. In the unprotected areas, such as the area lying to the north of the Panhlaing River in the Yandon Township, the whole of the western and southern portions of Pantanaw Township and the southern portions of Yandoon Island, the crops are always liable to be totally destroyed by excessive flooding and large remissions have to be granted yearly. Considerable areas suffer damage either wholly or partially and the poor cultivator is often left with little or nothing at the end of the year to reward his labours. The cultivator whose crops suffer a partial failure has to pay the full revenue unless he takes the trouble to apply to the remission officer for relief and is successful. There is no doubt that large numbers, whose lands have suffered damage from the effects of floods have not troubled to apply for remission. The extent of damage done each year by floods is therefore much greater than is indicated by the figures given below.

The following statement shows the area sown, the area failed to mature and the amount of remissions granted each year from 1906-07 to 1927-28.

Year.		Area sown.	Area failed.	Land Revenue Remission.
				Rs.
1927-28	...	615,760	61,980	81,519
1926-27		595,683	14,028	59,636
1925-26	...	544,907	8,038	5 ,663
1924-25	..	531,159	10,069	35,309
1923-24	...	512,177	45,141	2,22,269
1922-23	...	492,945	68,159	3,71,303
1921-22	...	484,160	15,603	1,39 898
1920-21	...	471,024	2,567	51,677
1919-20	...	442,335	6,268	1,19,062
1918-19	..	437,304	114,559	4,29,331
1917-18	...	436,051	16,380	84,081
1916-17	...	433,577	15,871	46,997
1915-16	..	430,478	46,774	1,23,062
1914-15	...	431,410	61,854	2,79,778
1913-14	...	431,133	12,276	61,774
1912-13	...	425,399	17,292	46,939
1911-12	...	422,112	75,713	1,99,855
1910-11	...	423,301	63,848	1,03,305
1909-10	...	420,672	47,498	64,511
1908-09	...	415,345	995	17,086
1907-08	..	398,935	6,124	27,744
1906-07		406,584	44,195	88,690

Deterioration of soils. There is no doubt that most of the land within the district has already passed through its short period of maximum fertility and that the outturns now tend to remain fairly constant. The settlement reports of 1889-90 and 1904-06 give no indications of the deterioration of the soil but from the fact that the lands have been continually cropped, it must be presumed that there has been a gradual decline in output since the lands were first brought under the plough. The statistics of crop measurements done during each settlement of the district however do not suggest that there has been any serious deterioration. The results of crop reaping experiments at each settlement are given below by townships.

Township.	Soil Class.	Average outturn per acre in baskets.		
		In 1889-90.	In 1904-06.	In 1925-28.
Pantanaw ...	I	48·97	42·87	40·00
	II	31·75	29·58	30·00
	III	...	...	25·00
Danubyu ...	I	52·67	44·64	45·00
	II	39·69	31·87	35·20
	III	...		25·00
Yandoon ...	I	51·84	48·10	47·50
	II	39·74	31·41	38·70
	III	...	...	28·70
Maubin ...	I	42·59	47·19	41·50
	II	35·04	37·53	32·16
	III	...	...	29·20

In many areas changed conditions in the drainage system of the land have led to an abatement of flooding and increased yields have been obtained. The highest soils have generally deteriorated owing to continual cropping.

The deterioration in outturn is in many cases due to increased flooding and not to actual exhaustion of the soil. The Yandoon Island Embankment has contributed most towards such deterioration and in the Danubyu and Pantanaw Townships, the increased flooding has resulted in a complete reversal of the original character of the land over large tracts. Lands which were considered too high in former days and capable of yielding only poor outturns were now found to be the best as they escaped the floods and yields were fairly constant while lands which formerly belonged to the middle levels were now too flooded to produce anything more than a moderate crop. In the Yandoon Township, there was a great improvement in yield behind the Government embankments but elsewhere, especially to the north of the Panhlaing River, the outturn has deteriorated owing to increased flooding.

Weeds. The weeds in the paddy fields differ from place to place but as some of them are indicative of soil and water conditions, a few may be mentioned. "*Myetgaungbyu*" and "*dayemi*" are two kinds of grasses which grow on yellow clay soil and are sure indicators of soil exhaustion. The elephant grass, the "*daungsaba*" and the "*nyanbin*" are found only in the deeply flooded portions, "*myetkyet-thun*" is found on the moderately flooded fields while

"*boktaung*" is a weed which grows up with "*tadaungbo*" paddy immediately the rains start. "*Myesa*", "*myetthindon*" and "*hasinè*" are found growing on the middle levels and indicate fertile soil. The "*padawmyet*" is a villainous enemy of the "*tadaungbo*" cultivator who finds to his dismay near the end of the rains that the weed has completely smothered his much expected crop by making a vigorous growth just when the paddy plant is about to form its ears of grain.

Crop Pests. The rice crop does not suffer to any great extent from insect pests. Occasionally the "*ngamyaungdaung*" caterpillar (*Spodoptera mauritia*) does extensive damage to the standing crops by cutting off the ripe ears of grain just before the harvest. The most common insect pests met with are the "*ushaukpo*" or "*sitpo*", paddy stem borers, "*gokpo*" or paddy ear cutting caterpillar, "*ywetpyatpo*" or rice case worm which causes the ears of grain to dry up and prevents the formation of grain.

Rats do a considerable amount of damage to cultivation in the Danubyu and Pantanaw Townships. Sparrows also take their toll of the paddy harvest and so numerous are the birds in some areas that stages of bamboo about ten feet high have to be erected at intervals over the *kwin* to support young boys and women who endeavour to frighten away the sparrows by shouting and flinging at them with a sling (*lauklwe*) small mud pellets into which tails of *kaing* grass have been stuck. Mention must also be made of Russel's vipers which are numerous enough in the lowlying areas to cause a serious nuisance at harvest time.

Methods of cultivation; Rice. The plough is now generally used as a preliminary to harrowing and the *setton* is employed only in places where the growth of grass is heavy. As soon as the rains begin the farmer and his assistants start the work of ploughing up the fields. In the flooded areas, his operations commence with the lowest levels and he gradually works up to higher ground. The plough is gone over the ground thoroughly so that the earth is turned up everywhere and this is repeated in every field. By the time he arrives at the last field in his holding, he finds that the broken-up ground in the first plot has become pulpy and he then commences his harrowing. It usually takes a month to plough up the fields in a 20 to 25 acre plot, two yokes of cattle being employed for this purpose. The harrowing is done according to a fixed plan. It is run first from north to south and from east to west across each field. Each of these harrowings is called a "*sat*". After running horizon-

take a diagonal course across the first ones, finally ending with circular harrowings. Every bit of the ground is thus covered and the furrows become continuous so that a fine tilth or "*thamaw*" is obtained. On the middle levels known as "*yedaw-modaw*"), the number of "*sats*" harrowed is usually six while no less than eight or nine "*sats*" are required on the higher soils owing to the stiffness of the ground. The lower soils being flooded require only four "*sats*" as the ground is soft and pulpy by the time ploughing begins. The farmer usually carries out all these operations in a few fields at a time so that the women who transplant the seedlings may have sufficient land to work on while he completes the harrowing in other parts of the holding. Usually a period of four months elapses before all the operations are completed. Unless there is a considerable area which requires replanting, the operations are completed by the full moon of Wagaung (about the second week of August). The labourers are then discharged and they return to their homes.

Transplanting is the general rule in the district and broadcasting is resorted to only when transplanting is impossible, and in this it differs from the practice which prevails in other districts where the two methods are interchangeable and broad-casting is practised only in order to save transplanting charges. The practice of broadcasting is therefore more from necessity than from choice and it should be understood in this district that the character of the broadcasted field is such that transplanting can never be substituted for it. During the period of ploughing the land the nurseries have already been sown and the seedlings are sufficiently matured to bear transplanting. They are generally one month old if the transplanting has to be done on land which receives a sufficiency of water, but six weeks where the land is a bit low and the plants are required to withstand flooding. The seedlings are always uprooted from the nurseries by men who are paid 8 to 12 annas for every 100 bundles of "*pyobaw*". Each "*pyobaw*" or "*pyosok*" consists usually of two "*phats*" and each "*phat*" consists of a handful of seedlings. The seedlings after being uprooted are made up into bundles of five hundred to a thousand and taken on the shoulder, by boat, or on a small wooden sledge to the transplanting field. The seasonal labourer generally does a little work in plucking seedlings from the nursery and placing them in readiness in the fields for the next day's work. This work is generally done in the ... fully occupied with ploughing up to

about 11 o'clock in the morning. He rarely takes part in the transplanting. The task of transplanting is carried out by the women of the house or by labourers engaged at daily wages. More women than men take part in the transplanting as the men must carry out the more arduous task of plucking the seedlings from the nursery bed and carrying them to the fields. Women sometimes refrain from taking part in the transplanting of flooded fields, chiefly on account of the inconvenience caused by the mud and slush and the impossibility of tucking up their skirts as men do but it is not at all unusual to find women donning Shan pants and braving the attacks of leeches by tying up the trousers at the ankles with a tape. The cleft stick (*kauk satk tan*) is used in all places where there is a certain depth of water but the plants are generally put in by hand where the land is comparatively high and the ground only a few inches under water. Usually two to four plants are put in together but four is considered too many except on some of the older soils, generally old fruit gardens converted to paddy land. The spacing of the seedlings is described as so many to the fathom. On land just brought under cultivation, the richness of the soil permits a spacing of four to the fathom as the plants tiller well. There is however little land in the district which allows a spacing of four clumps to the fathom. Even on the levels considered the best land in the *kwin* the spacing is six to eight to the fathom. On the old garden converted fields even ten to twelve clumps are put in A practice which is peculiar to the conditions prevailing in the flooded areas north of the Panhlaing River in the Yandoon Township is the planting up of fields with half grown plants from another field fully transplanted only a month or so ago. The usual rate paid for a ten fathom square plot is six baskets of paddy payable at harvest. This works out to the high rate of 72 baskets per acre. The plants obtained from a 40-fathom square plot are subdivided before being replanted and are sufficient for four 40-fathom square plots. After planting up his fields the cultivator has a period of two month's rest to stretch his tired limbs after his hard work in the mud and slush of the fields. But his days of anxiety are not yet over A flood may come and destroy his plants in the lowlying parts and he would have to incur the expense of replanting them or he may have to patch up damaged fields with extra transplants. The days before the harvest are however not spent in idleness. His seasonal labourers have returned to their homes and he must daily make long trips often by boat to secure the required

bundle of grass for his oxen. By the full moon of *Tazaungmon* (end of October) the harvest hands are engaged and preparations are made for the reaping. Before reaping the field is usually swept with a long bamboo so as to bend the crop and make the work easy. The ordinary sickle is employed. The reaping is done by the cultivator and his family and if harvest hands have also been engaged they also take part in the reaping. Outside labourers are obtained for the portions which the cultivator is unable to reap himself and are paid for at daily wages, at "*hlaingkauk*" rates or by contract. At "*hlaingkauk*" rates the reaper takes one sheaf in every ten reaped. Indian labourers are generally employed for reaping on the contract system If the holding is not too large, the seasonal labourer for the harvest can generally do a little reaping besides tying up the sheaves of cut grain and carting them to the threshing floor, otherwise his portion of the reaping is given to outside help and he is merely asked to aid in the work of transporting the paddy to the threshing floor.

The threshing is generally done in a field near the village. The ground is first cleared of stubble by removing them with a *dah* or hoe, and is then smoothed over with the *kyandon*. The surface is hardened by driving a cart over it in circles or by making the cattle tread the ground in the same manner. After this a wash of cowdung and earth is given so as to stop up all the cracks and make the surface smooth and hard for the collection of the grain. Most of the threshing floors in the district are situated not far from the village and this is due to the fact that the cultivator dispenses with the field hut and carries out all his agricultural operations from the village itself. After the sheaves are brought in, they are laid out in the form of a square with the ears of grain pointing inwards ; then a second line is laid with heads pointing upwards and the square is filled up in this manner with successive lines of sheaves. The threshing is done by driving several pairs of bullocks in a circle repeatedly over the heaped-up sheaves, the cultivator raking up the straw between rests. The cattle are muzzled to prevent them from eating the grain. The treading of the sheaves is carried out in the early mornings long before the sun is up and also in the evenings, the work being continued late into the night. In the Danubyu Township threshing is done by driving a cart over the stacked-up sheaves. Though the work is hard on the cattle, the process hastens the work of threshing. No harm is however done because the average holding is small

in size and the cattle are never employed very long on this task.

The grain is generally winnowed from a small platform erected for the purpose. The grain is passed up in baskets to the man standing on the winnowing stage (*lint-sin*) and is then allowed to drop through a wide meshed sieve which is kept suspended by strings tied to its four corners.

This is shaken a few times as the grain is allowed to pass through and remnants of broken straw are thus removed.

Floody resisting varieties of paddy.

Tadaungbo paddy has played so important a part in the cultivation of flooded areas that some of the peculiarities connected with its method of cultivation is deserving of record. Tadaungbo paddy was introduced into the district about twenty years ago but the latest addition to the *tadaungbo* group is the variety known as ***mishe*** or ***mokseik*** There are four important varieties of paddy belonging to the *tadaungbo* group and their powers of resisting the action of floods is in the following order; ***Mokseik*** (also called ***mishe*** or *daiktaba*), *tadaungbo*, ***sitpwa*** (also called *yebwa*) and ***ngaseinbyu.***

Ngaseinbyu is a popular variety and is grown all over the western portions of Pantanaw Township and the central portions of Yandoon Island. Its popularity is due to its freedom from red grains, the cultivator often passing off his crop as "*ngasein*" or using it to adulterate other varieties to obtain the benefit of "*ngasein* prices". "*Ngaseinbyu*" can withstand depths of 5 to 6 feet of water and is therefore suited to places where the land is moderately flooded. The next popular variety is "***sitpwa***" which contains a small percentage of red grains. *Tadaungbo* is grown on the deeper flooded soils and can withstand 8 to 12 feet of water while the ***mishe*** or ***mokseik*** which contains nothing but red grains, can be grown in places too deeply flooded even for the hardy *tadaungbo*. It has been known to survive depths of 15 to 18 feet of water. All four varieties belong to the ***kauklat*** group of paddy and ripen during the last week of November or the first week of December. The cultivation of the *tadaungbo* paddy is dependent on three conditions to ensure success. The first condition is that the rate at which the flood waters rise must be slow, that is, only a few inches a day so as to unable the plant to make a corresponding growth in its height. A rapid rise in water level would drown out all the young plants. The second condition is that the waters must be still. If there is a current, it must not be so strong as to cause the plants to fall down or be carried away by the rush of currents. The

third condition for its successful cultivation is connected with its early maturing habit. Unless the ground is quickly drained of its flood waters immediately the monsoons are over, the harvesting will have to be done from boats and rafts.

Ploughing is done in March and April before the rains break. After 6 to 10 years of ploughing, the ground becomes too hard for the plough to penetrate and the operation is postponed till the first few showers of rain soften the top layer of earth. The task is heavy on both cattle and ploughmen as the work must be performed in the hot sun of April or in the equally trying period of May and June before the rains start in earnest. Ploughing is never done thoroughly as on the higher lands and ploughing in four directions is all that is done on *tadaungbo* soils. It however necessitates the employment of a large number of cattle as two yokes must be employed where one would suffice for the ordinary form of cultivation. The work is done in a great hurry and in many cases is scamped in order that the sowing of seed may be completed before the flood waters come and cover up the land There are two forms of broadcasting. Wet broadcasting is known as "*thamangye*" and is done on lands which lie next in level to the transplanted fields. The ground is well ploughed and harrowed till a fine tilth is obtained and the seed is sown after allowing it to sprout in a wet bag for a period of twenty-four hours. The sprouted seed sinks in the soft mud and there is less loss from the depredations of birds and rats. The yield is also better because the young plants come up free from weeds and grass. In the other form of broadcasting, the seed is sown on dry grouud immediately the ploughing operations are completed in April. The first showers of rain germinate the seeds and the young seedlings come up amidst a profusion of grass and weeds which stunt their growth. Dry broadcasting is employed on the lowest levels because the land gets covered up with water so rapidly that wet broadcasting would be too late.

In both forms of broadcasting, the chances of success depend much on the character of the season. If the early rains are not excessive. the young seedlings have time to establish themselves so well that they are strong enough to withstand the floods that cover up the land soon after the commencement of the rains. If the rains are plentiful and the floods heavy, the waters rise too quickly and the plants are killed off by drowning. The crop that survives the winds and the waves attains maturity by the end of November and the grain is ready for harvesting early in

December or as soon as the land can be drained dry. The cost of reaping is high when compared with higher and more productive soils. Reapers are not easy to obtain as the work has to be done while the ground is still wet and there is the risk of snakebite as Russell's vipers are particularly fond of lying beneath the tangled mass of straw and grain which covers the ground.

The chief drawback of *tadaungbo* paddy is the large percentage of red grains which reduces considerably the selling price. It is impossible to husk satisfactorily owing to its softness, causing the grain to break in passing through the mill. It is usually bought by Indian traders for par-boiling and export to India.

Agricultural customs.

In the case of holdings which adjoin each other, the "*gyakazin*" or embankment which forms the boundary line has to be kept in repair by the owners of both holdings and neither has an exculsive right to it. The owner of the holding higher than the other has the right to cut the *kazin* and let out the excess water from his fields, provided it does no damage to the lower field. If the cultivator in the interior of the *kwin* is late with the ploughing, the owners of the outer holdings may leave a path for his cattle but he cannot claim this as a right. If a narrow path is left unplanted for his sake, he has to carry out the planting with his own labourers as soon as the rest of his holding is completed.

Cattle are not allowed to graze on the *kwins* while the crops are still on the ground, but after the harvest is over, there is no restriction to the movements of cattle. Lands lying waste near a village are considered the exclusive grazing ground of that particular village. There are also no restrictions as to the appropriation of timber and other spontaneous products Waste land situated elsewhere is considered the "*dama-u-gya*" of the first man who cuts and clears it but small plots lying adjacent to established cultivation are considered to be within the sphere of influence of the nearest worker and objections are made if a newcomer intrudes on such ground. Cattle paths to grazing grounds are protected under the revenue rules but many of the cattle paths which existed between blocks of cultivation in the Ma-ubin Township have gradually disappeared as no steps were taken to preserve them, after they were demarcated. There is no redistribution of island lands annually submerged by the rise of the Irrawaddy River but "*mynu-kyunbaw*" lands are distributed by village headmen by the drawing of lots amongst those who have no land of their own to work.

Agricultural implements. There is nothing particular to note in connection with agricultural implements in use in this district. The iron tipped plough (*te*), the six toothed harrow (*tundon*) and the clod breaker and smoother (*kyandon*) are generally employed. The *setton* for cutting grass is a heavy wooden cylinder into which are fitted short blades of iron: as the cylinder s drawn along, it rotates and cuts the grass. Its use is confined to low soils in which the growth of grass is heavy but its use is not so common in the district. Generally the *tunseik* with twelve or more teeth is used to remove the grass and other weeds. Ploughing of lowlying areas for *tadaungbo* cultivation by means of tractors is a recent innovation in the district and is likely to increase in popularity owing to the rapidity with which the land can be ploughed up in the dry state for the sowing of *tadaungbo*.

Manuring. There is little manuring done in the district. The practice of manuring fields is confined mostly to nursery beds. Occasionally herdsmen are asked to tether the cattle in poor fields at night and are given a small fee in baskets of paddy but the practice is not common. Cow-dung is the only kind of manure used in the district. A noticeable change of recent years is the abandonment of the practice of burning the stubble. An accidental fire may burn up the stubble in the fields but everywhere it is recognised that the stubble when ploughed in is a better fertiliser than the ash.

Crops other than rice. Gardens. The ordinary homestead plots within village sites are not extensive and there is little or no method followed in their maintenance. All kinds of fruit trees are put down but the most common are mangoes, jackfruit, marian, betelnut, cocoanut and bamboos. On the whole little care is devoted to gardens.

***Kaing* crops.** During the cold months of the year, miscellaneous *kaing* crops are put down on islands as soon as the river level subsides on the cessation of the rains. A considerable quantity of vegetables, such as tomatoes, brinjals, pumpkins and gourds is grown for the Rangoon market near the villages of Le-einsu and Kokkosu, the southern portion of Yandoon Island.

Tobacco. The tobacco grown on the islands in the Irrawaddy River is famous for its quality. The variety grown is said to be Havana tobaccoo. It is much used by the cigar rollers of Danubyu. The soil of these islands consists of loamy silt which is ideal for the cultivation of tobacco. The tobacco nurseries are generally started early in *Thadingyut* (about the first week of October) on some of the

higher portions which appear first above the surface on the fall of the river level. The seeds saved from the previous year's plants are used. A *pyi* of seed is usually sown on a 10-fathom square plot. The seedlings are uprooted in the evening by women and children and carried to the plots to be planted the next morning. Only enough seedlings for the next day's work are uprooted each evening. If the cultivator fails to obtain a sufficient quantity of seedlings from his own nurseries, he has to buy them at Rs. 2 per 1,000 plants. Planting work is paid for at eight annas a day with a morning meal or eight annas per 1,000 plants without the meal. The seedlings have their roots dipped into a pot of water placed near each planter and are then dibbled in by hand. No further watering is done. Two flat clods of earth protect the young plants from the rays of the sun till they are well established. Weeding is done twice during the season and the time of the tobacco cultivator is fully taken up with pruning the plants of side shoots and exercising constant care with regard to the numerous insect pests.

The plants are generally spaced out in rows at intervals of two cubits each and there are about 4,500 to 5,000 plants to the acre. Usually eight to twelve leaves are left to mature. In April and May the leaves are plucked and strung through the stalk on bamboo rods of a cubit and a half in length. The strung leaves are put out in the sun to dry for three or four days and are placed across long bamboo poles. They are then taken down and placed flat on the ground to dry for three to ten days more. Straw is generally placed thickly on the ground before the leaves are spread out to dry so as to protect the leaves from the bites of crickets (*payit*) The leaves are next taken to the curing sheds where they are left hanging across bamboo poles and are not taken down till after a month when the leaves are thoroughly dry. The stalks, especially the few inches near the base still remain green and must be deprived of the remaining moisture or they will rot when stacked. So the leaves are taken down and exposed to the sun for four of five days and then stacked in heaps in order to complete the curing process. The leaves are removed and stacked again once a week or oftener if there are signs of heat, the lower leaves being brought to the top and *vice versa*. After the rains have started in earnest, the leaves become damp to the touch and they are then ready for sale.

"Thin" (Clinogyne Dichotoma).

The cultivation of the *thin* plant for the making of Burmese mats is of considerable importance in the Pantanaw

Township. It is generally found growing in gardens in the semi-shade of fruit trees but it thrives best in the southern portions of the Pantanaw Township where the soil is mainly of an alluvial character. The plant is more or less like a reed and the value of the crop depends on the length of the stalk before it bifurcates out into smaller branches. The height of the plant varies from 3 feet 3 inches to 7 feet 6 inches. Below 3 feet 3 inches it has no commercial value as it is too short for making mats and they are ruthlessly cut down when the annual weeding takes place. A plantation of *thin* takes six years to mature but subsequent crops are obtained every three years. The initial cost of planting and weeding a 40-fathom square plot of *thin* is Rs. 228 or Rs. 171 per acre during the period of six years. Thereafter the only recurring expenditure is the cost of weeding which is only Rs. 24 per acre per annum.

The value of a good *thin* plantation is high, the highest paid being Rs. 600 per acre. The value of the crop depends on the size of the plants and prices vary from Rs. 120 to Rs. 480 per acre, but the average rate paid is about Rs. 240 per acre.

Hired Labour.

Mutual help amongst the cultivating class is unknown. Home labour is employed to the fullest possible extent and hired labour is obtained only to supplement home labour. Landless men are everywhere common and in many villages there is a distinct class of agricultural labourer who rarely rises to the position of a tenant or owner. Payment is ordinarily made by feeding the workman during the period of his employment and paying him either in cash or produce after harvest. Produce wages are common in the Danubyu, Yandoon and Pantanaw Townships but cash wages are usually given at harvest in the Maubin Township. Labourers are rarely engaged for the whole year. The wage of a labourer for the ploughing season varies from 50 to 80 baskets. For harvesting 40 to 50 baskets are usually paid. These rates are exclusive of food which is supplied by the employer. Money wages payable at harvest are Rs. 50 to Rs. 80 either at ploughing or harvest time. Daily labourers for weeding, plucking and transplanting of seedlings, are paid one basket of paddy at harvest or Re. 1 in immediate payment. The most common wage for a labourer who does transplanting work is 8 to 12 annas a day supplemented with an early morning meal or one basket of paddy payable at harvest. Reaping is done either on the *hlaingkauk* system or at acre rates. By the *hlaingkauk* method, the reaper gets one sheaf in every ten or three sheaves in every

twenty reaped. At acre rates, the work is paid for either at Rs. 4 to Rs. 6 per 40-fathom square plot of 1⅓rd acres or Rs. 80 for a 20-acre plot plus the necessaries of life during the period of reaping. These consist of 300 billets of firewood, 3 baskets of rice, 2 bottles of kerosene oil and Rs. 2 for curry stuffs for every 20 acres reaped. The latter rate is demanded usually by bands of Indian reapers who roam from village to village during the reaping season.

Disposal of agricultural produce.

Rangoon is the central market for the rice crop of the whole district. The bulk of the paddy is exported to the Rangoon mills immediately after the threshing operations are completed and little is stored in granaries to await favourable prices later in the season. There is no lack of buyers from Rangoon and the large majority of cultivators dispose of the year's produce to paddy traders a month or two after the harvest is over.

Method of sale and transport.

The transport to the central market at Rangoon is effected chiefly in sailing barges known locally as *tonkins* They usually carry 2,000 to 2,500 baskets and are manned by a crew of eight, mostly by Coringhis who get about Rs. 18 per month. The steersman however gets Rs. 25 per mensem. These men usually make something extra by earning Re. 1 per 100 baskets of paddy for loading the *tonkin* at the buying centre. Jungle brokers get Re. 1 per 100 baskets as brokerage but the paddy trader has to pay Rs. 2 per 100 baskets to the head brokers who send out these sub-brokers to visit distant areas and buy the paddy at the most favourable rates. The paddy is carted to the nearest landing stage which is generally situated at some large village on the main river where landing facilities exist. The barge having been loaded is placed in charge of a trusted clerk who is paid Rs. 30 to Rs. 35 per month with a food allowance of Rs. 30 per mensem or Rs 2 per day for the days actually spent on the journey to Rangoon and back

Paddy loading centres.

The following are the principal centres at which paddy is collected for export :—Kyonsok, Thôngwa, Sitchaung, Kywegat, Mithwechaung, Byaingse, Kywedon, Aukton, Yelegale and Chaukywa in the Maubin Township; Kyontani, Sagagyi, Kanu, Tamya, Danubyu, Kyauktaing, Thabyu and Setkaw in the Danubyu Township; Yandoon, Samalauk, Mezali, Kokkowa, Kattiya and Chaunggyi, in the Yandoon Township; Daunggyi, Pantanaw, Sinlangyi, Mingayu, Zayathla, Mayan, Payagyi-daung, Wedaung and Thanbayachaung in the Pantanaw Township.

The number of cattle in the district during the years 1904-05 and 1927-28 is given below :— Cattle.

—	1904-05.	1927-28.
Plough Cattle—		
Oxen	35,273	78,730
Bull buffaloes ...	660	3,030
Cow buffaloes ...	5,587	4,320
Total, Plough Cattle ...	41,520	86,080
Other Cattle—		
Cows	12,127	25,761
Kine	14,901	24,873
Young Stock—		
Buffaloes	5,252	3,087
Total, Other Cattle ...	32,280	53,721
GRAND TOTAL ...	73,800	139,801

The number of plough cattle has more than doubled itself within the last twenty-three years, the increase under oxen being most noticeable. The number of cows has also shown a similar increase. Bull buffaloes have also increased considerably. They are bred mostly within the district but except in the flooded portions where the use of the buffaloe is imperative, the bullock is slowly replacing the buffaloe as the latter is not only more susceptible to disease but is also useless for transport purposes. The breeding of oxen is carried on in the district on a small scale. The needs of the cultivator as regards oxen are largely met by importations from Upper Burma. The area of land which can be worked by a yoke of cattle is about 10 acres.

Hire and sale of cattle.

The price of a good plough bullock about 4 or 5 years old varies from Rs 90 to Rs. 125. The average price of a female buffaloe is Rs. 160 to Rs. 200. A male buffalo is worth about Rs. 20 less. The average rate of hire for a pair of bullocks is 50 baskets of paddy for the whole year, that is, for both ploughing and threshing operations. For a pair of buffaloes the rate is 10 baskets higher. If hired for the ploughing season only the rate is the same. In the latter case the cattle are returned to the owner immediately the ploughing is completed and the owner is put to the trouble of feeding and tending the animals himself till the rains are over or engaging a herdsmen to cut the grass every day for the oxen. The man who hires the cattle

for the whole year is therefore given the privilege of using the cattle for the threshing operations in return for the trouble and expense of looking after them during the rains.

As regards herding, the usual rate for a buffalo is 10 baskets of paddy for a period of 3½ to 4 months. In the case of bullocks, a young boy is engaged for Rs. 10 to Rs. 15 per month with food.

Grazing grounds. The total area of reserved grazing ground in the district is 43,440 acres. Most grazing grounds have cattle paths leading to them reserved. In the Maubin Township, the original allotment of land for cultivation even provided small paths of 10 feet width between each holding of 20 acres. These either allowed easy access to the grazing grounds or provided excellent fodder for the cattle. Unfortunately no steps were taken to have them properly reserved and in many cases have become merged in the adjoining holdings. After the harvest is over, the cattle are allowed to graze anywhere. Grazing grounds are necessary mainly during the ploughing season and just before the crops ripen. But owing to the large percentage of oxen used in cultivation, the custom of stall feeding during the rains is almost universal. Generally the grass growing on the ***kazins*** is sufficient for the needs of the cattle Where the supply is insufficient, it is supplemented with paddy straw which is stored in large heaps in almost every village. Little use is made of many of the grazing grounds in the district because they contain nothing else but scrub jungle in which there is not a blade of grass for the cattle to graze.

The only justification for their existence is that they provide fuel to the residents of the neighbourhood. The custom of stall feeding is expensive and is also troublesome but there is much to be said for it. The cattle are healthier on the whole when stall fed. There is also less danger from thieves and snakes and they are less liable to contract the diseases which are usually disseminated in a grazing ground. For the oxen in the district, grazing grounds are really not necessary. Grazing grounds are however necessary for areas where buffaloes predominate. Buffaloes eat more and perhaps keep better health in a grazing ground as they get more exercise and can wallow in the mud and slush with impunity. Regarded as grazing grounds many of the reserves are more or less failures as they contain so much jungle that it is only with considerable difficulty one can get through them. Proposals have been

made to examine these useless grazing grounds and to throw them open to cultivation either by the constitution of Government estates or by making *thugyisa* grants.

Diseases and mortality amongst cattle.

Statistics are not available of cattle deaths prior to the year 1925 but during the last twenty years there was no serious outbreak of any cattle disease. The average number of deaths during the last 4 years is 2,979 out of a total of 136,712 cattle in the district. Classifying them by diseases, out of the total number of cattle rinderpest claimed ·11 per cent, victims, anthrax ·05 per cent, foot and mouth disease ·04 per cent, debility and old age ·76 per cent, snake bite ·33 per cent, accidents ·02 per cent, and other causes, ·87 per cent. Thus the rate of mortality amongst cattle was 2·18 per cent per annum.

Ponies, goats and pigs.

In 1927-28 there were 130 geldings, 32 stallions, 398 mares and 116 young animals under the head of ponies. They are numerous in the northern parts of the district where there are fewer creeks and greater facilities for their use during the dry months of the year. Most of the animals were poor specimens which would not fetch in a dry zone district half the price paid here. There are 11,357 pigs in the district. In many of the Karen villages, pig breeding is of considerable importance as it helps to provide a subsidiary income when the year's crop is poor.

Individual ownership of land.

Most of the land in the district is held by individuals who own on an average an area just large enough to enable a family to live in comfort. Estates having 500 acres and above number only 26 and the total area comprised in 1927-28, 28,228 acres of which 15 estates were in the Maubin Township with an area of 19,750 acres, one in the Yandoon Township with 837 acres, 6 in the Danubyu Township with 5,330 acres and 4 in the Pantanaw Township with 2,311 acres. The average size of a holding is about 25 acres. Fragmentation of holdings on the death of a person is not done unless the estate is large enough. Usually the subdivision does not reduce the size of the holding below 25 acres which is the most economical to work. If the estate is small, the heirs generally consent to value the land at current market rates and take their share in money, either by selling the land to others or preferably by allowing one of the heirs to buy up the land on favourable terms.

Area owned by agriculturists and non-agriculturists.

The area owned by non-Burmans is practically negligible as the Indian element has made but little headway in acquiring land within the district. In 1905-06, the area of land held by non-agriculturists was reported as 25 per cent while in 1927-28 the percentage was only 28 per cent, which shows that the greater part of the occupied area is

still in the hands of the agriculturist. Out of 80,242 holdings in 1927-28, 14 per cent were held by non-agriculturists. Of the remainder 79 per cent were worked by the owners themselves.

Areas sold and sale values. There is little fluctuation in the number of sales of rice land between the years 1904-05 and 1927-28. In 1904-05, the average number of sales was 1,421 and the average area sold was 23,605 acres, while in 1927-28 the number of sales was 1,379 and the area sold 21,675 acres. The sale value of rice land has, however, risen a great deal during this period, from Rs. 39·38 per acre in 1904-05 to Rs. 124·51 in 1927-28 In every township, the value of land has doubled and trebled itself during the last twenty years and in the embankment protected areas, the value has risen from 300 to 400 per cent. This is due, partly to the rise in the price of paddy, partly to the growing scarcity of fertile waste and partly, though to a less extent, to the growing competition amongst non-agriculturists who have come to regard the purchase of land as the most suitable form of investment for their surplus cash.

Mortgage values. Mortgage values, like sale values, have risen a great deal during the past twenty years. Usufructuary mortgages are rare.

Tenancies. There are only two varieties of tenancies, fixed cash and fixed produce. Partnership and share produce tenancies are non-existent. The total number of tenants for all main kinds recorded during the settlement operations of 1925-28 was 14,511, working an area of 254,201 acres or 43 per cent of the occupied area. Of these 13,919 tenants worked 249,745 acres of rice land or 46 per cent of the occupied area. Of garden land there were only 93 tenants working 355 acres while there were 972 tenants of *kaing* land working 4,103 acres. A few fixed cash tenancies are to be found in almost every tract in the district but the total number of such tenants is only 217 working an area of 2,336 acres.

No statistics are available of the races of landlords and tenants but in most places Karens preponderate

Condition of tenants. The condition of tenants in the district has not improved during the past twenty years owing to the rise in the prices of all commodities connected with the cost of living. His position is practically the same as it was in the past because of the increasing high rents which the landlords take as their share of the year's produce. There is as yet no well defined line between the landlord and the tenant classes but there are signs everywhere that the standard of living of the latter is distinctly poorer. In places a

distinct tenant class is now existent and these rarely save enough to rise to the position of a landlord. The high rents demanded by landlords leave the tenant little or no profit and so small is the margin of safety that in an unfavourable year he gets into debt. The landlord who is unable to get back the whole of his loans, allows his tenant to go on working the holding a few years more, the first loan being compounded with interest and a fresh loan issued, probably at the same ruinous rate of interest. The next two or three years may be favourable but it is the landlord who reaps the benefit of increased outturns or better market prices. The tenant has always his debt as a millstone round his neck and he can never make anything more out of the tenancy beyond obtaining sufficient for his cost of living. A succession of bad years would land him in serious difficulties and he may be reduced to the position of a labourer or to parting with his land if he is an owner worker. His troubles are mainly due to the high rates of interest which he has to pay for his loans. The situation is not so bad in the unprotected and precarious areas as the rents there are more elastic. In many cases the tenant of such areas ekes out a living by the process of liquidating the debts contracted during the lean years by a favourable harvest every three or four years. In the embankment protected areas, the complaint is general that the full rent is invariably demanded by the landlord and that even if any remission of rent is granted, it bears no relation to the diminution of yield experienced in a year of unfavourable rainfall. Increases in outturn due either to a favourable season, or to increased diligence on the part of the tenant, invariably afford a pretext for raising the rent the next year. Competition to secure tenancies has forced up rents and is still raising the rents in many parts of the district. The number of long term tenants is therefore small and no less than 11,255 out of 14,511 in the district were found to have been working the land for less than five years. Five thousand six hundred and twenty tenants were found to have worked their land for one year only which shows that there is little stability amongst the tenant class. Another factor which has contributed to the increase in rents is the pressure of the population on the land owing to the absence of any suitable land for further expansions. Rather than join the ranks of the labourers, the tenant will go on increasing his rents, even if this leaves him nothing more than the wages which he would ordinarily earn as a labourer in another's fields. His decision is influenced by the fact that he likes to keep his family

together. He would rather have his sons and daughters to work in his own fields than allow them to go out as labourers to work for others. In the flooded areas, where rents are low and outturns uncertain, there is a constant migration of tenants from holding to holding in the hope that their luck will improve but many give up the struggle and become labourers. The ability to pay up one's loans is generally considered a satisfactory ending of the year's work and in fact the absence of a surplus is considered normal. The tenant is usually quite pleased if his budget does not show a deficit. The general impression one gains of the conditions in the district is that in the embankment-protected tracts the tenant is fairly well off. He cannot save enough to rise to the position of the small owner nor can he dispense with the necessity of obtaining loans at high interest but he is always able to make ends meet and to maintain a moderate standard of comfort. In the flooded tracts, especially in the precarious tracts of the Yandoon and Pantanaw townships, the majority of tenants seem to be working on a mere subsistence allowance or something very nearly approaching it. A good year often follows a succession of unfavourable seasons and in consequence the floods have been less severe enabling the poor tenant to obtain an exceptionally good crop. In such a case he is able to return the loans contracted during the lean years and in this manner he gets a fresh lease of life by further borrowings for the ensuing year.

Generally the cultivator of the poorer soils has a subsidiary source of income, either from fisheries, mat making, carting paddy for others or doing a little work in the *kaing* holdings during the hot months of the year.

Rental values.

The rent per acre at the original settlement of the district in 1889-91 was Rs. 5·71 or 9·84 baskets of paddy. Since then rents have risen steadily over the whole district but it was most marked in the areas protected by the Government embankments. At the first revision settlement of Messrs. Lowry and Ormiston in 1904—06, the rental value per acre was found to be Rs. 9·98 or 11·12 baskets while at the second revision settlement of the district in 1925—28, the rental value had risen to Rs. 21·43 or 13·02 baskets of paddy. Although the average rent per acre has risen by 1·90 baskets only when compared with the figure of 1904—06, it will be seen that its monetary value has increased by no less than 122 per cent.

The statement given below gives an interesting comparison of the rents prevailing at the last two settlements of the district.

Present Assessment Tracts		Mixed soil classes.			
		Settlement of 1904-06		Settlement of 1925-28.	
		Rs.	Baskets.	Rs.	Baskets.
1	..	9·18	11·38	17·40	11·30
2	...	8·39	10·49	16·49	10·52
3	...	7·53	9·42	10·62	7·82
4	...	9·01	10·64	17·32	10·89
5*	..	12·26	12·85	27·43	16·47
6*	...	10·97	12·24	29·27	17·84
7	...	7·86	9·22	17·21	11·31
8	...	10·77	12·02	18·19	11·06
9*	...	10·24	11·44	25·31	15·48
10	...	7·15	8·76	6·92	5·52
11	...	9·07	11·11	15·01	9·24
12	...	6·91	8·33	9·42	6·32
13*	...	8·68	9·76	16·78	10·18
14	..	7·92	9·31	12·61	8·12
15*	...	10·[illegible]8	11·18	28·19	16·62
16	...	7·91	8·84	11·92	8·08
17*	...	10·04	11·22	22·19	13·48
18*	...	9·97	11·11	21·85	13·08
19*	..	9·79	10·94	22·75	12·48
20*	...	9·79	10·80	24·82	13·17

From the above figures it will be seen that rents are higher in the embankment-protected tracts than elsewhere and that in these tracts the rents have increased since the previous settlement of the district.

Due to increased flooding as a result of the measures taken to protect Yandoon Island by means of embankments, the rent per acre has decreased in Tracts 3, 10, 11, 12 and 14 of the Settlement of 1925—28. But owing to the rise in the price of paddy during the last twenty years, the rental value has however increased in every case.

Embankments.

The question of embankments is an all important one for the district and it is their construction that has enabled the cultivator to bring under cultivation the large areas of low land in the district which would otherwise have remained waste up to this day.

N.B.—Those marked with an asterisk are protected tracts.

The following account is given by Mr. C G. Barnett in his Note on Protective Embankments in the Delta. "Prior to the British occupation of Lower Burma by the British in 1854, the Burmese in order to protect in some measure their paddy fields from inundation, have from time immemorial been in the habit of constructing so-called bunds at all points along both banks of the river of a lower level than that of the general surface of the country. These bunds were however of so paltry a description that they seldom served the purpose for which they were intended and in a single season were usually washed away. The old Anaukpet Bund which existed prior to 1861 was 1½ miles long and was somewhat heavier than the other Burmese embankments It was situated immediately south of Henzada. Other lighter works ran in front of Henzada and between the town of Zalun. There are also records of similar works having existed at Kyangin and on the right bank of the Potashin. There seem to have been few great floods experienced in the earlier years of the British occupation of the country; but the floods of 1861 brought disaster to such as existed and the cultivation dependent on them; in that year the old Anaukpet bund was totally destroyed and a new one was built by the Public Works Department in the same year. This inaugurated the construction and maintenance of embankments by Government in the Delta."

The Irrawaddy Embankment. The Anaukpet Bund was raised and strengthened in 1865 and subsequently formed part of the embankment system. In 1865 a continuous embankment along the right bank of the Irrawaddy from the high ground where the Potashin stream issues from the Yomas, north of Myanaung to Henzada was constructed. This embankment passed behind the towns of Myanaung, Kanaung and Henzada and was 5 feet above flood level. Owing to the high floods of 1868 which flooded out both Myanaung and Kanaung marginal embankments along the river edge were made in the following year for the three towns of Myanaung, Kanaung and Henzada. The same year saw the construction of the cross bund to join up the Henzada marginal embankment and the Anaukpet Embankment with the main embankment at the back of Henzada Town. The first four miles of the Ngawun Embankment was also started in the same year. The idea of a continuous embankment from Henzada southwards along the right bank of the Irrawaddy was then mooted but the scheme was delayed because of the shifting sand banks at the mouth of the Ngawun and the rapidly increasing size of the Thanbyadaing *chaung* which offered a new entrance to the Bassein River. It was

ultimately decided by the orders of Government that the Ngawun connection with the Irrawaddy was to be left open so long as it was useful. The one great embankment on the banks of the Irrawaddy was thus split up into two, one following the left bank of the Ngawun and the other extending southwards to Za'un to which place the embankments reached in 1872. The embankment was extended to Danubyu in 1873-75. Estimates to extend it further south to Setkaw opposite Yandoon were submitted in 1873 but the extension of the Ngawun Embankment was given preference over the work. The Irrawaddy Embankment was however extended to the 53rd mile in 1875 and was completed to its present terminus on the Bawci opposite the town of Pantanaw in 1883. Since then no further extensions have been made. The total length which falls within the Maubin District is 26½ miles. The embankment protects the whole of the Danubyu Township which lies on the west bank of the Irrawaddy River.

The Maubin Island Embankment.

This embankment which originally cost Rs. 2,02,268 for 74 miles was constructed during the years 1882—84. The embankment was raised in height from time to time and the portion between miles 38½ and 46½ (original mileage) was realigned nearer the river bank in 1892-93, thus increasing its length to 80¾ miles. Owing to the erosions, retirements have been necessary from time to time and near Byaingse, Sitchaung, Kywegat and Sakhangyi, the original embankments have long been washed away by erosion. These spots have been a continual source of anxiety to the embankment authorities, especially near Sakhangyi where frequent retirements have been necessary. A new embankment enclosing an area of about 9,500 acres of island formation near Yelegale was started in 1927-28 and has not yet reached completion. This Embankment known as the Bhamani-Shwedaunghmaw Embankment scheme curtails the length of the present Embankment by 7¼ miles. Owing to the Maubin Embankment being in the tidal zone, the embankment is considerably lower than the main Irrawaddy Embankment and less free board is allowed. The consequent low cost of the embankment and the large area of land reclaimed makes this the most successful financially in the Irrawaddy Delta.

The Sangin Sagagy Emban ment.

At the end of the seventies and the beginning of the eighties, a village road existed between Sangin and Sagagyi. In 1882, this road was taken over and practically remade as an embankment by the District Cess Fund under the auspices of the Deputy Commissioner, Thôngwa,

as this would protect a large area immediately behind the embankment. It was subsequently taken over by the Public Works Department and maintained as an embankment. The embankment between the years 1882 and 1884 extended southwards as far south as Sangin only. A proposal to extend the embankment southwards to Yanginsanya opposite Yandoon Town at a total cost of Rs. 93,000 was made in 1890 but the scheme was not sanctioned for want of funds. During the years 1882—84, the villagers extended the embankment themselves to Kakku *chaung*, a large creek just north of Sagagyi which admitted a large quantity of water from the the Irrawaddy. In 1885-86 the Public Works Department closed this creek and extended the village embankment up to this creek while in 1887-88, the embankment was extended further by another four miles to the north as far as Apyauk, making the length of the embankment, 14½ miles as it exists at present.

The Thôngwa Island Embankment.

This was commenced in 1897 at a cost of Rs. 1,81,861 for 35½ miles. Short extensions were made in 1900 and in 1907-08, the length became 40½ miles as it exists at present. The embankment like that of Maubin Island is not a high one and a free board of only one foot and six inches is provided. The construction of the embankment was much too premature as it prevented the ingress of silt laden water into the island which would have raised considerably the level of the interior portions. As it exists at present, the embankment provides immunity from flooding to only a small area of land, a mere fringe of high land in the immediate vicinity of the embankments. The interior forms a vast depression in which only a precarious kind of cultivation is possible. The drainage of the interior is poor owing to the absence of well-defined creeks to carry off the water into the main Tayaw *chaung* which forms the chief outlet into the main Irrawaddy River. Mention is made in the reports of the Irrigation Department of large sums of money spent in attempts to improve the drainage and from the fact that the Season and Crop Report of 1908-09 mentions the existence of two Government canals known as Teinngu and Kyaiklatgyi Cuttings, it was clear that an effort was made in the past to improve the drainage of the island. Subsequent events however proved that scant attention was paid to these considerations as the drainage channels now form part and parcel of existing fisheries and a *myinwunse* was even allowed in the only *chaung* which acted as the chief drainage outlet for the surplus waters of the island. The latter checked the flow of the drainage waters to such an extent that large

areas suffer from excessive flooding annually and reaping has to be postponed till the waters subside which is generally very late.

The Yandoon Island Embankment.

The embankment which consists of two branches is 54½ miles long and was constructed at a total cost of Rs. 12,68,014 which includes small additions to the capital outlay up to 1924-25. The Irrawaddy branch starts from the town of Yandoon and runs for a distance of 32 miles along the left blank of the Irrawaddy River and ends at the village of Maletto, a large fishing village at the mouth of the stream of the same name. The Panhlaing branch which is 22½ miles long, runs eastward from Yandoon along the south bank of the Panhlaing River up to the village of Mezali and then turns to the south for a few miles terminating at the village of Ngetpyawgyun, a large village at the mouth of the Pazunmyaung *chaung* (also known as the Ngetpyawgyun *chaung*). This embankment which was completed in 1917-18, protects the whole of the northern portions of Yandoon Island. South of Alan the embankment offers little or no protection to the lands in the interior of the island, and at the same time has stopped the silting-up process of the low-lying portions lying immediately behind the villages of Maletto and Tani.

Private Irrigation and Protective Works. The Sangin-Yanginsanya cultivators' embankment.

This is a small embankment extending from Sangin, a village just opposite Danubyu to Yanginsanya, a village at the mouth of the Panhlaing River. Its total length is 13¾ miles and it was constructed in 1910 at a total cost of Rs 20,925. This amount was contributed by the cultivators of all the *kwins* whose lands would be benefited by the scheme. At the settlement of 1904-05 this bund was already in existence but it was no larger than an ordinary high *kazin* and breaches were frequent. This bund was demolished about the year 1908 as it was feared that the safety of the Government embankments on the opposite bank of the Irrawaddy would be threatened if it was allowed to exist. On an appeal being made, the necessary permission was granted in 1909 to reconstruct the bund. A condition was however laid down that four masonry pillars to each mile should be constructed, the tops of which were to mark the high flood level of the year 1906. The height of the new embankment was to be regulated by the line of masonry pillars. These masonry pillars have either been washed away by the erosion of the river or embedded in the bund itself. One or two of the masonry pillars which were discovered were as low as the level of the adjoining fields and it was difficult to understand how a

bund of so low a height could have saved the land from flooding. Apparently the orders were not obeyed because the present structure was found to be at least 5 or 6 feet above the height of the masonry pillars. It is now 18 years since the bund was first constructed and the cultivators, as far as it can be ascertained, have not hesitated to raise the height of the bund from time to time in order to escape the yearly flooding that takes place. Both Messrs. Mathers and Lowry, who did the original and revision settlements of the district, were of opinion that the bund should be taken over by the Government. Breaches in the bund have been an annual occurrence and large areas under flourishing crops of paddy were destroyed at each breach. The general poverty of the cultivators in the area lying to the east of this embankment might be traced to this cause. It seemed clear from its past history that without the aid of Government the cultivators could scarcely hope for relief from flooding. At one time the construction of this embankment by Government appeared to be the only solution but the lesson of higher flood levels caused by the construction of the Yandoon Embankment has convinced all concerned that by its construction, only one part of the district will be saved at the expense of increased flooding in other parts and that it might even lead to increased pressure round Maubin Island to such an extent as to jeopardise the safety of the existing embankments.

The Kyo-ton-Thayet-ngu private embankment.

This embankment, the most successful amongst those done by private agency, was constructed in 1920 by voluntary contributions from cultivators in the immediate vicinity of the proposed work. The total length of the embankment is 18½ miles. Breaches of a minor nature occurred a few years after its construction but it has now withstood the force of the floods for the past 6 or 7 years and in consequence large areas behind the embankment have been benefited.

The Pyalin Embankment.

This is a small embankment round 13 *kwins* on the southern banks of the Pyalin *chaung*, an off-shoot of the Pantanaw River. It was constructed about 1917-18 at a cost of about Rs. 6,000 collected by voluntary contributions from landowners. The structure was not strong enough to withstand the floods and so frequently has it been breached in the past that no effort is now made to keep it in repair. In consequence it has become useless and has been practically abandoned.

CHAPTER V.

FORESTS AND MINERALS.

Nil

CHAPTER VI.

OCCUPATIONS AND TRADE.

Classification of people by occupation; Agriculture; The Fishery industry; Pottery-making; Mat-making; Manufacture of fishing nets; Extraction of juice from the "*te*"; Manufacture of cheroots; Plying of carts for hire; Trading centres; Export markets.

Classification of people by occupation.

The following summary shows the number of persons dependent on different occupations for their livelihood as returned in the last two censuses :—

Occupation.	1911.		1921.	
	Number.	Percentage.	Number.	Percentage.
1. Exploitation of the surface of the earth.	223,273	73·19	252,437	76·47
1. Production of raw materials.	.	.	...	...
2. Industry ..	13,656	4·48	16,028	4·86
3. Transport ...	6,176	2·02	6,711	2·03
4. Trader ...	43,596	14·29	39,463	11·96
5. Public Force ...	1,056	·35	1,019	·31
6. Public Administration.	1,493	·49	1,754	·53
7. Professions and Liberal Arts.	4,123	1·35	6,144	1·86
8. Persons living on their income.	87	·03	199	·06
9. Domestic Service	865	·28	634	·19
10. Insufficiently described.	10,345	3·39	5,208	1·58
11. Unproductive and unclassified.	403	·13	509	·15
Total ...	305,073	...	330,106	...

Agriculture. Throughout the district a large majority of the people depend on agriculture for a livelihood. In 1921 out of a total population of 330,106 persons, agriculture gave employment to no less than 123,152, of whom 49,564 were cultivating owners, 25,976 tenants and 47,612 agricultural labourers. Including those dependent on the actual workers, the agricultural population of the district numbered 216,160 persons or nearly 66 per cent of the whole.

The Fishery Industry. The fishery industry employs no less than 12,565 actual workers who support amongst them 11,201 dependents. There are in all 758 leased fisheries in the district distributed as follows :—

Maubin Township	...	...	231
Pantanaw Township	...	...	316
Yandoon Township	...	..	94
Danubyu Township	...	..	117

The manufacture of ngapi and dried fish is an important industry.

Pottery-making. Pottery-making on a small scale is carried on at Setkaw and Tamya in the Danubyu Township and at Yondaw-Obo in the Pantanaw Township The workers who numbered only 476 persons in 1921, make unglazed pottery such as cooking pots, tea kettles, flower pots and vases, and water pots and sell them to dealers who hawk about in large Burmese boats from village to village within the district as a rule, but sometimes in the Myaungmya and Pyapôn districts as well.

Mat-making. Mat-making is one of the minor industries which helps in many places to supplement the agricultural income of the family. The industry is however on a small scale as the supply of the *thin* reed is insufficient to meet the demand. The task of removing the *thin* from the stalks of the plant, drying them out in the sun and splicing them into suitably sized strips, forms the work of the women who also weave the mats in their spare time. Those living in the towns of Danubyu, Pantanaw and some of the larger villages in the neighbourhood of these towns make mats for export to Rangoon, but elsewhere it is an occupation subsidiary to agriculture and the women of the household devote their attention to mat weaving only during the slack season after the harvest has been gathered and sold or during the rains after the planting operations have been completed.

Manufacture of fishing nets. The manufacture of fishing nets is an interesting industry and offers employment to a small number in the Setkaw Village-tract of the Danubyu Township. The men

spin the thread in locally made spinning machines and then wind it on flat wooden reels which are made to revolve round a spindle. The process of tanning it with the juice of the *te* or fig fruit next takes place, the men standing before these revolving reels and brushing the thread with the juice till it assumes a dark brown hue. The thread when dry is wound off in hanks and made over to the women who do the netting work in their spare time.

Extraction of juice from the *te*

Some of the households in Setkaw besides making nets, extract the juice of the *te* or wild fig by pounding the fruit in wooden mortars and then pressing it. The liquid which is stored in jars is taken in boats to various places in the delta and sold to fishermen for dyeing their nets. The *te* is the fruit of the wild fig which is plentiful in the *indaing* forests of Upper Burma. It is brought down from there to Setkaw in large boats.

Manufacture of cheroots.

At Danubyu the rolling of cheroots from tobacco grown in the neighbouring islands, offers employment to about 815 people but the bulk of the tobacco crop is exported in leaf.

Plying of carts for hire.

A large number of people in various parts of the district are profitably engaged in plying carts for hire. In a district where the bulk of the paddy is sold on the threshing floor, the necessity of carting the grain to the nearest landing stage to be loaded into *tonkins* affords a considerable addition to the annual income of agriculturists and on the main roads the supply of carts is barely equal to the demand.

Trading centres.

Yandoon is the centre from which up-country goods are distributed to the delta towns and villages. A great amount of trade is carried on in boats. There are municipal bazaars in Yandoon, Maubin and Danubyu. The bazaars at Sitchaung, Yelegale, Sagagyi and Kattiya are under the charge of the District Council.

Export Markets.

The district exports all its paddy to Rangoon except a small portion retained by the people for food and seed. There are no large export markets of importance but numerous villages along the banks of large rivers are selected where the grain from the surrounding country is collected for transport. Paddy brokers and traders get the grain carted to the nearest loading stage and gather as much paddy as possible because transport charges are much lightened if the *tonkins* are not required to wait for a sufficient quantity to make up a full load. The greater the the number of trips the *tonkin* can make to Rangoon, the less are its charges. During the dry months the river banks are lined with temporary granaries and in some

places where the bank is steep and the anchorage good, the loading of the grain is facilitated by cutting away the earth and making a sloping chute, the soil from the top being utilized at the bottom for making a temporary loading stage near the water's edge. The surface of this sloping bank is smeared with cowdung and earth and the thousands of baskets of paddy stored above is simply shovelled below to be loaded into the waiting tonkins.

CHAPTER VII.

MEANS OF COMMUNICATION.

Waterways; Roads; Post and Telegraphs; Government steam vessels; Landing stages; Rest-house.

Waterways The Irrawaddy River with its main branch the To or China Bakir River forms the main artery of communications in the district. The Irrawaddy Flotilla Company maintains an excellent service between Rangoon and the principal places in the delta and there is no lack of communications to even the most remote village in the district. Besides the mail steamer service between Rangoon and Mandalay there are daily launches plying between Rangoon and Yandoon and between Rangoon and Pantanaw, the former going through the Panhlaing Creek during the rains and the latter stopping at Wedaung *only* during the dry weather. Maubin possesses a daily launch which leaves in the early morning and returns from Rangoon at dusk. There are also large steamers plying thrice weekly between Rangoon and Henzada calling at Maubin, Yandoon and Danubyu while there are express launches with cabin accommodation plying daily between Rangoon and Bassein and between Rangoon and Henzada, both calling at Maubin. A daily service is also run each way between Henzada and Pyapôn, calling at Danubyu, Yandoon and Maubin. There are also steamers plying between Yandoon and such places as Einmè, Wakèma and Moulmyainggyun in the Myaungmya District. All these serve the villages situated on the banks of the Irrawaddy River and its branches. The eastern boundary of the district possesses two services, one through the Hlaing, Kokkowa and Bawlè Rivers to Nethamein and another through the Panhlaing Creek to Kattiya. In spite of the number of launches maintained by the Irrawaddy Flotilla Company, they are supplemented by many privately owned launches and motor boats. There are motor boat services maintained between Maubin and such places as

Sitchaung, a village about 9 miles north of Maubin, Kawetkin, a large village not far from the mouth of the Twantè Canal, Tazinyegyaw, a village high up the Maletto *chaung* and Kyonsok, a large and flourshing village in the Panthabut River. Motor boats also run from Yandoon to Sagagyi, a small town on the extreme north of the district and from Yandoon to Mezali in the Panhlaing River. The so called Chetty launches owned by Indians ply between Kyaiklat and Taman and between Kyaiklat and Thaungtu. These serve all the villages on the southern boundary of the district, the former plying in the Tayaw *chaung* and the latter in the Singu and Thaungtu Rivers. These small launches and motor boats which carry passengers only, stop at any place hailed at and though they are none too safe and are small and dirty, yet they are generally crowded to their utmost capacity

Paddy is carried by the Irrawaddy Flotilla Company's steamers and flats but the bulk of the grain is transported in cargo boats of all sizes which enter the smaller creeks as well. During the paddy season the main rivers present an animating scene with steamers passing to and fro and numerous cargo boats with their broad sails weathered to shades of red and brown, taking their burden of the year's crop to the mills at Rangoon.

The Irrawaddy River though navigable everywhere suffers from shoals which necessitate frequent buoying but its off-shoots, the Panhlaing and the Pantanaw Rivers are in a still worse condition. The Panhlaing was formerly the route connecting Rangoon with Yandoon *viâ* Kattiya but it has silted up so completely between Mezali and Ngetpyawgyun that the route is now closed throughout the year. During the rains, the Irrawaddy Flotilla Company's launches come up the Hlaing and Kokkowa streams and then enter the Panhlaing River through the Bawle which joins it at Mezali. During the dry months timber rafts which come down from Upper Burma still follow the Panhlaing route on their way to Rangoon but steamer navigation is impossible except for small native owned launches and motor boats The Pantanaw River is also silted up so badly between Pantanaw and Wedaung that launches can come up only as far as the latter village. Travellers to Pantanaw either go by sampan or by cart across the fields. Many prefer to travel by the steamer for Yandoon and then alight at Daunggyi from which place there is a motor bus service connecting it with Pantanaw.

Both the Tayaw and Thaungtu *chaungs* are navigable for steamers of light draught but the latter stream is so choked

up with *beda* weeds between the months of January and April that traffic is often at a standstill or it takes days to accomplish what could be performed in a few hours.

oads. There are only two metalled roads of any importance in the district. One is from Maubin to Yelegale, a large and important village 9 miles due west of Maubin on the western edge of Maubin Island. This road was originally metalled with " dilon ", a kind of hard baked ball of earth, but recently the District Council has commenced to metal the surface with stone About four miles have now been completed and it is proposed to complete the entire length as funds permit. This road is largely used during the paddy season for bringing the grain in carts either to Maubin or to Yelegale. In spite of its short length there is an incessant stream of motor traffic throughout the day. No less than 30 to 40 cars ply on it and though car owners complain that a set of tyres do not last more than three months owing to the bad condition of the road surface, it is evident that there is no dearth of passengers to keep all of them employed on a remunerative basis. Another road which is next in importance is the one leading from Danubyu to Kyontani, a small village on the western border of the district. At the time of Mr. Lowry's settlement in 1904-05, this road extended only as far as Pyingatha, 8 miles distant. An extension of 6 miles was subsequently made to its present terminus in the Maubin District. The road, however, does not end at Kyontani but crosses the Kyontani *chaung* by a large wooden bridge and continues to Kyônpyaw and Ngathainggyaung in the Bassein District. It is therefore an important trunk road connecting Danubyu with places in the interior of Kyonpyaw Township. The road is metalled with " dilon." The number of motor cars plying on this road is just as large as in Maubin. Along both roads there is an incessant stream of cart traffic during the paddy season but except during the monsoons, they are confined to the berm of the roads. During the open season, the surface of the embankments offers a splendid road for cyclists and pedestrians and full use is made of them, many of the residents of villages along the embankments having invested in bicycles. Cart tracks usually run along the inside edges of these embankments and Ford cars may often be seen plying between Maubin and the villages along the bund. Indeed it is possible during the dry weather to go to any village in the interior in a Ford car as the high ground clearance of this make enables one to negotiate the *kazins* and cart

ruts of the country-side. Motor cars sometimes ply between Danubyu and Pantanaw (25 miles) along the inside edge of the Government embankment, while across the paddy fields motor buses ply between Daunggyi and Pantanaw in the hot weather. In the Yandoon Township, cars go to various places and a regular service is maintained for passenger traffic. A motor lorry for the conveyance of paddy to the landing stage was even met with in the Pantanaw Township. No part of the district is land-locked but the export of paddy will undoubtedly be facilitated and the cost of transport reduced if short feeder roads to the river bank are made. It will then be possible for the bulk of the grain to be transported in motor lorries to the loading stages at the river bank. At present cart tracks offer a good road surface for the motor car during the short period of a fortnight or a month after the paddy comes into the market and about a month after the selling season is over. Later on in the hot weather the cart ruts become too deep, especially near the *kazins* and much spade work has to be done during a journey in order to enable the car to get over difficult ground.

There are two bridge roads in the district which have fallen into disuse since the last settlement. One is from Alamyo to Hnegyo, a distance of ten miles. It has not been kept in repair and in consequence little use is made of it. Carts however use the berm of the roads in bringing the paddy to the important export centre of Tamya, a village just two miles south of Alamyo. The bulk of the paddy from the interior is also brought along this route and a metalled road leading into Tamya and Danubyu would facilitate transport and at the same time form a useful link with the Henzada District. Another road is from the fourth mile on the Maubin-Yelegale Road to Seiktha, a village situated near the Government embankments in the northern portion of Maubin Island. This road was originally constructed in order to facilitate communication with the northern part of Maubin Island should abnormal floods threaten the safety of the embankments but it has never been used for this purpose and even at the time of Colonel Ormiston's settlement in 1905-06, nothing was done to keep the road in repair and in consequence it was quite unused and unusable. It is now in a worse condition. All the paddy of the interior *kwins* is taken to the nearest river bank and this road is now not necessary. What is really wanted in a delta district like Maubin are short feeder roads to the river bank in order to facilitate the transport of paddy. A good metalled road along the side

berm of the Government embankments would also meet all requirements and improve communications a great deal.

Now that the Pantanaw River has silted up and launches can go up only as far as a Wedaung, a village ten miles away from Pantanaw, communications would be much improved if a metalled road is made between Pantanaw and Daunggyi, a distance of seven miles. The latter village is situated on the Irrawaddy River itself and travellers now prefer to go by the Rangoon-Yandoon launches reaching Daunggyi early in the evening. The journey is continued by motor car or bullock cart and the town is reached before nightfall.

Posts and Telegraphs. There is a Head Post Office at Maubin and Sub and Branch Post Offices at Sitchaung, Yelegale, Kyonsok, Thôngwa, Kawetkin, Danubyu, Sagagyi, Pantanaw and Yandoon. Post offices were opened at Kyontani, Mayan and Ngagyigayet at the end of 1927 as an experimental measure but were abolished at the end of six months as being unremunerative. The larger villages are visited about twice a week but the smaller and less accessible villages only receive their letters at uncertain intervals.

There are telegraph offices at Maubin, Danubyu, Sagagyi, Pantanaw and Yandoon: There is telephonic communication between the Police station at Maubin and Yandoon.

Government Steam vessels. The officials in the district who have much touring to do are provided with steam launches. The Deputy Commissioner and the District Superintendent of Police are each provided with a commodious house-boat in addition to the launches required to tow them. The Superintendent of Land Records, the Superintendent of Excise and the Subdivisional Officers of Yandoon and Maubin share a launch between them.

A launch is specially reserved for the use of the Embankment Subdivisional Officer during the rains in order to enable him to reach quickly places where erosions threaten the safety of the embankments but during the dry months this launch is shared with other officers, who need them for touring purposes. The Police at Maubin have been provided with small motor boats to enable them to reach quickly distant places immediately on receipt of the news of violent crime. Those at Yandoon have been similarly provided. A list of the leased ferries will be found in the B Volume of the Gazetteer. They are situated on the Irrawaddy, the To, Panhlaing and Pantabud Rivers.

There are no landing stages anywhere in the district. The Irrawaddy Flotilla Company provides large pontoons at Maubin, Yandoon, Pantanaw and Danubyu to enable passengers to embark and disembark without inconvenience but elsewhere the launches either tie up against the high bank or use sampans to take the passengers ashore. Government launches have generally to find places along the river where the water is deep enough to enable them to tie up against the bank. Landing stages.

In a district where most of the officials travel about in Government launches, the need for rest-houses is not so great and those that exist are therefore few and far between. Rest-houses.

There is a circuit house at Maubin and there are Dak bungalows at Maubin, Pantabut, Letkokpin, Achan, Kawetkin, Nga-pe-oh, Kywedon and Yelegale in the Maubin Township, at Yandoon, Samalauk and Mezali in the Yandoon Township, at Danubyu, Akyaw, Kyontani and Kyaungzu in the Danubyu Township and at Pantanaw, Wedaung and Zayathla in the Pantanaw Township.

CHAPTER VIII.

FAMINE.

Nil.

CHAPTER IX.

GENERAL ADMINISTRATION.

Constitution of the Thôngwa District; Changes in organisation; Present General Administration; List of Deputy Commissioners; Village Administration; Judicial; Crime; Police; Jail; Ecclesiastical, Roman Catholic; The Yandoon Mission; The Maubin Mission; The American Baptist Mission; The Co-operative Credit Societies; Agricultural Department, Public Works Department; Posts and Telegraphs; Land Records Department; Veterinary Department.

On the annexation of Pegu in 1852, the Yandoon and the Maubin Townships were included in the Dalla Subdivision of the Hanthawaddy District. The Danubyu Township was within the Henzada District and the Pantanaw Township was within the Bassein District of the old Constitution of the Thôngwa District

Pegu Division. As soon as it was clear that life and property had become more secure, land was taken up in every direction and new settlers came from other places. The task of administration became so large that in 1875 a new district called the Thôngwa District was constituted. It embraced portions carved out from the adjoining districts of Henzada, Bassein and Hanthawaddy. From the Henzada District was obtained the township of Danubyu, from Bassein the Shwelaung and Pantanaw Townships, and from Hanthawaddy the Thôngwa, Yandoon, Pyapôn and Dedaye Townships. The new district, when thus formed, had a population of 186,810 persons and produced a total revenue of Rs 10,24,306.

Changes in organisation. In 1881 the Irrawaddy Division was formed by separation from the old Pegu Division of the districts of Bassein, Henzada, Thôngwa and Thayetmyo. The Thôngwa District and its neighbour the Bassein District became so large that in 1893 the Myaungmya District was created out of portions taken out from them. The Pantanaw and Shwelaung Townships were contributions from the Thôngwa District. On the formation of the Myaungmya District, the Thayetmyo District was taken away from the Irrawaddy Division. There was a large increase of population in the delta in consequence of the rapid spread of cultivation. Later, the work of the Deputy Commissioners of the Thôngwa and the Myaungmya Districts became so heavy that it was decided to form a new district, to be known as the Pyapôn District, out of these two. This decision was given effect to on the 1st December 1903. In the redistribution of townships the Thôngwa District, which was renamed the Maubin District, obtained the Pantanaw Township back from the Myaungmya District. One purpose of the new arrangement was to collect, as far as possible, the most valuable fisheries in the delta under the Deputy Commissioner, Maubin, who would be able to give special attention to the fishery administration. Since 1903, the district boundaries have under gone only slight alterations, those necessitated by the transfer of a few *kwins* to and from the Wakèma Township of the Myaungmya District.

Maubin was chosen as the headquarters of the Thôngwa District in 1876 by Sir Ashley Eden, the then Chief Commissioner, for its central position. Maubin was then only a small village in which resided a small number of *Talaings*, who worked the neighbouring fisheries and Karens, who took to agriculture. It was situated in marshy country where myriads of mosquitoes bred and

multiplied. Colonel Horace Brown, Commissioner of Pegu, when recommending, in 1879, the construction of the Maubin Embankment, said of Maubin Island :—

" At the present time the whole island is a swamp, producing nothing but myriads of mosquitoes and a few fish, with a narrow fringe of garden land along the river." District officials apparently did not appreciate the choice of Maubin as headquarters and they ironically dubbed it the " Garden of Eden." For some years after its establishment, the advisability of moving the headquarters to Yandoon was discussed. This was however, vetoed by Colonel Horace Brown who was of opinion that " although the mosquito plague might be trying, yet it was by no means evident that the scents of Yandoon, resulting from the *ngapi* trade, might not be worse."

Present General Administration.

The district consists of the Maubin Subdivision with the Maubin and the Pantanaw Townships and the Yandoon Subdivision with the Yandoon and the Danubyu Townships. The district is in charge of a Deputy Commissioner as usual, and is under the general supervision of the Commissioner, Irrawaddy Division, resident at Bassein. At headquarters is an officer who performs the duties of Headquarters Assistant and Special Power Magistrate, another who combines the duties of Headquarters Magistrate and Treasury Officer, an Akunwun who is an Additional Magistrate, and two Inkunwuns, who are also Additional Magistrates. There is a Subdivisional Officer in charge of each subdivision who is also Subdivisional Magistrate, and similarly there is a Township Officer in charge of each township who also performs the duties of Township Magistrate. Honorary Magistrates number twenty-two, six each at Maubin, Yandoon and Danubyu and four at Pantanaw.

List of Deputy Commissioners.

The following is a list of Deputy Commissioners of the old Thôngwa District for the period 1875-1903 and of the Maubin District after the creation of the new Thôngwa District :—

Serial No.	Names.	Year of appointment.
1	S. T. Smith, Esq.	1875-76
2	H. A. Gower, Esq.	1876-77
3	Capt. J. Butler, I.A.	1877
4	Major G E. Fryer, I.A. ...	1877-79
5	G. L. Weideman, Esq., I.C.S. ...	1879

Serial No.	Names.	Year of appointment.
6	E. J. Splitt, Esq.	1879
7	G. L. Weideman, Esq., I.C.S. ...	1879-80
8	H. Buckle, Esq.	1880
9	W. W. Fox, Esq.	1880-81
10	H. Buckle, Esq.	1881
11	F. S. Copleston, Esq , I.C.S. ...	1881-82
12	H. Buckle, Esq.	1882-83
13	R. Phayre, Esq.	1883-84
14	F. S. Copleston, Esq., I.C.S. ...	1884-85
15	S. H. T. De La Courneuve, Esq. ...	1885
16	Major C. B. Cooke, I.A. ...	1885
17	A. M. B. Irwin, Esq.	1885-86
18	Col. W. W. Pemberton, I.A. ...	1886
19	Capt. W. F. H. Grey, I.A. ...	1886
20	C. J. A. Duke, Esq.	1886
21	Major C. B. Cooke, I.A. ...	1886-88
22	Lieut. T. G. Johnson, I.A. ..	1888-89
23	H. G Batten, Esq. ...	1889-90
24	Capt. B. A. N. Parrott, I.A. ...	1890
25	E. Carmichael, Esq	1891
26	S. H. T. De La Courneuve, Esq. ...	1891-92
27	J. M. George, Esq., I.C.S. ...	1892
28	S. H. T. De La Courneuve, Esq. ..	1892-93
29	Capt. G. E. T. Green, I.A. ...	1893
30	H. P. Todd-Naylor, Esq., I.C.S. ...	1893-94
31	A. P. Pennel, Esq , I.C.S. ...	1894
32	D Wilson, Esq., I.C.S.	1894
33	Capt. F. D. Maxwell, I.A. ...	1894-96
34	Capt. D. J. C Macnabb, I.A. ...	1896-97
35	G. W. Shaw, Esq., I C S ...	1897-98
36	W. H. C. Minns, Esq , I.C.S. ..	1898
37	G. F. S. Christie, Esq., I.C.S. ...	1898
38	A. T. A. Shaw, Esq., I.C.S. ...	1898-99
39	W. F. Rice, Esq., I.C.S. ...	1899
40	J. D. Fraser, Esq. I.C.S. ...	1899
41	Capt. S. L. Aplin, I.A.	1899
42	Capt. F. D. Maxwell, I. A. ...	1899-90
43	J. D. Fraser, Esq., I.C.S. ...	1900
44	Capt. F. D. Maxwell, I.A. ...	1900-01
45	A. E. English, Esq , I.C.S. ...	1901
46	Major F. D Maxwell, I.A.	1901-03
47	H. C. Moore, Esq., I.C.S. ...	1903-06
48	H. G A. Leveson, Esq., I.C.S. ...	1906-07
49	H. Clayton, Esq., I.C.S. ...	1907-08
50	D. F. Chalmers, Esq., I.C.S. ...	1908-09
51	Capt. A. B. Roberts, I.A. ..	1909-14
52	C. R. P. Cooper, Esq., I.C.S. ...	1914
53	W. V. Wallace, Esq ...	1914-15
54	J. J. Anderson, Esq , I.C.S. ...	1915

Serial No.	Names.	Year of appointment.
55	Major H. V. M. Langtry, I.A. ...	1915-17
56	U Po Pe (2), K.S.M , A.T.M. ...	1917
57	Lieut.-Col. H. V. M. Langtry, I.A. ...	1917
58	U Po Pe (2), K.S.M., A.T.M. ...	1917-20
59	F. C. Barclay, Esq., I.C.S. ...	1920-21
60	U Po Pe (2), K.S.M., A.T.M. ...	1921
61	W. J. Smyth, Esq., I.C.S. ..	1921-22
62	E. J. Farmer, Esq , I.C.S. ...	1922
63	A. E. Gilliat, Esq., I.C.S. ...	1922-23
64	W. L. Barretto, Esq	1923-24
65	F. C. Barclay, Esq., I.C.S. ..	1924-25
66	Lieut.-Col. H. P. M. Lord, I.A. ...	1925 26
67	Major H. R. Pelly, I.A. ...	1926-27
68	U Ba E, B.A., K.S.M., A T.M. ..	1927
69	C. K. Davis, Esq.	1927

Village Administration.

For many years after the annexation of Lower Burma in 1854 the land revenue and other district taxes were collected by *taik* or circle *thugyis* who were in charge of large groups of villages and were often powerful and influential men. These circle appointments have been abolished within the last 30 years as they fell vacant from death, retirement or other causes. The last circle *thugyi* (of Hnegyo circle) retired on pension in 1920; but he retained charge of his own village as village headman, the 8 subordinate headmen under him taking over independent charge of their respective tracts as village headmen on full commission. The village-tract consists either of a single village or of a group of villages which can be conveniently supervised by a single headman. All headmen are appointed by the Deputy Commissioner. Village headmen are remunerated by a commission on all revenue collected by them, but it has been found that the commission is in many cases insufficient to recompense him for his trouble and to uphold his dignity. Accordingly, land known as "thugyisa," that is land assigned as an appanage of the office of *thugyi* or headman, has been granted in certain cases. The *thugyi* pays the revenue and can let the land or work it himself, but he has no right to sale or mortgage and acquires no heritable interest in it. As occasion arose amalgamation of small village-tracts was undertaken in accordance with the present policy of Government to enlarge headmen's charges and to make their position

more attractive. The average commission paid to the headmen in 1927 was Rs. 259. In addition to this Rs. 5,000 was allotted to the district for the payment of rewards to headmen in accordance with the scheme laid down in Local Government's Resolution No. 225D26, dated the 3rd August 1927. In the same year the Deputy Commissioner, Maubin, expended Rs. 4,475 in rewards varying from Rs. 50 to Rs. 150 to 54 headmen. The continued amalgamation of village-tracts reduced the number of headmen to 281 in 1925 and to 277 in 1927. The judicial work of headmen was generally satisfactory though not extensive. In 1924 headmen exercising special civil powers numbered 78 and those exercising special criminal powers numbered 58.

The amendment of the Village Act in 1924 led to the withdrawal of special civil and criminal powers from headmen and their conferment on Village Committees. The Burma Village Amending Act, 1924, came into force with effect from the 20th December 1924. In 1927 there were 153 Village Committees with special criminal powers and 136 with special civil powers. Village Committees have been fairly active in (*a*) the trial of civil suits, (*b*) the trial of criminal cases, and (*c*) co-operation with the headman in matters relating to the genaral administration of the village-tract. The following remarks of the Commissioner of the Irrawaddy Division in the Administration Report of 1926 bear testimony to the good work accomplished, on the whole, by Village Committees:—"The conduct of members of Village Committees has on the whole been good. There was close co-operation between headmen as chairman and other members of the Committees. The members of the Village Committees are usually respectable and representative men of the villages, and are of the class from which headmen and ten-house-*gaungs* are recruited. They are regarded as the ***lugyis*** of the village and exercise considerable influence. The co-operation of the Committees has been found of utmost value in dealing with habitual criminals under the preventive sections and in that respect quite a number of them have done good work."

There are 2,297 ten-house-***gaungs***, of whom 2,018 are exempted from payment of the capitation-tax. They continue to give a good return for the small privileges to which their appointment admits them by active co-operation with the headmen and by usefully rendering assistance to the officials of the district in the discharge of their duties.

Judicial. In 1925 the light Sessions charge of Maubin was amalgamated with that of Myaungmya and the post of Additional District and Sessions Judge with headquarters at Maubin was sanctioned, as a result of the recommendations made by Mr. J. P. Doyle of the Burma Commission (Judicial Branch). The District and Sessions Judge resides at Myaungmya. There is one Subdivisional Judge for the Maubin and Yandoon Subdivisions at Maubin. At each of the four township headquarters there is a Township Judge.

Crime. The following table shows the condition of the district in regard to crime in the decade 1918-27 :—

Year.	No. of violent crimes.	No. of dacoities.	No. of cattle theft cases.	All kinds of true cognizable cases.	No. of cases sent up for trial.	No. of cases convicted.
1918 ...	38	3	35	1,016	789	668
1919 ...	42	12	61	1,173	954	790
1920 ...	67	9	88	1,268	910	761
1921 ...	87	16	52	1,170	833	698
1922 ...	75	14	53	1,267	937	792
1923 ...	80	17	72	1,292	1,008	851
1924 ...	79	33	55	1,148	879	723
195 ..	87	44	51	1,126	829	712
1926 ...	53	27	62	993	775	710
1927 ...	37	9	47	972	790	714

Police. The Police Force in 1875 when the Thongwa District was first constituted, consisted of—

1	Superintendent.
2	Inspectors.
3	Head Constables.
11	Sergeants.
147	Constables.
37	Water Police.
201	Total.

There was also a force of Military Police consisting of 18 members. *Kyedangyis* who were exempted from capitation-tax were also appointed in hamlets when necessary, and they were bound to report all crimes occurring within the hamlets to *Yazawut-gaungs*. In 1880 the District Cesses and Rural Police Act (Act II of 1880) was passed and by it a cess of 5 per cent. on the land revenue and certain other revenue was levied so as to provide funds for the support of the rural police. In 1890-91, however, in accordance with the scheme for reorganising the Lower Burma Police, *Yazawut-gaungs* and *Kyedangyis* were abolished or transformed when suitable into village headmen or rural policemen, who were as a rule ten-house-gaungs and received no pay. About the same time the beat patrol system was instituted, and for the training of constables a Police Training School was started at Maubin. The Police of the Maubin District are in charge of a District Superintendent of Police, who has under him a Deputy Superintendent as Headquarters Assistant. There is also a Deputy Superintendent as the District Assistant and he is stationed at Yandoon. A reorganisation has been effected in accordance with the suggestion made by the Police Enquiry Committee. The following two statements show the distribution and strength of the Police Force before and after the adoption of the recommendations made in the Police Enquiry Committee's Report.

Distribution and Strength before the Police Enquiry Committee's recommendation.

Distribution. (1)	Inspectors. (2)	Sub-Inspectors. (3)	European Sergeants. (4)	Head Constables. (5)	Constables. (6)	Total of all ranks excluding Inspectors of Police. (7)	Mounted men (included in column 6). (8)	Menials. Peons. (9)	Menials. Punkah-pullers. (10)	Menials. Sweepers. (11)	Drill Inspector. (12)	Military Police sanctioned for District. (13)
DISTRICT STAFF AND HEADQUARTERS LINES.												
Circle and Town Inspectors	4	...	..	...	..	...	...	...	...	..	...	...
Prosecutors	1	5	...	...	...	5	...	...	...		...	...
Depôt Staff	...	1	...	1	...	2	...	...	...	...	...	...
Readers	...	2	...	...	...	2	...	...	...	...	...	...
Escorts	..	...	...	2	21	23	...	...	...	..	...	...
Buglers	...	...	...	...	2	2	...	..	...	...	...	...
Orderlies	...	...	...	...	12	12	...	...	...	...	...	...
Finger Print	...	...	...	1	..	1	...	...	...	...	...	...
Menials	...	...	...	...	...	...	...	2	2	2	...	...
(i) Total District Staff and Headquarters Lines.	5	8	...	4	36	48	...	2	2	2	3	80
STATIONS AND OUTPOSTS (INCLUDING THOSE AT HEADQUARTERS OF DISTRICT).												
At Maubin Police Station	...	3	..	14	23	40	...	...	..	...	...	...
At Kawetkin Police Station	...	1	...	5	10	16	...	..	...	...	...	...
At Yelegale Police Station	...	1	..	4	9	14	...	...	...	...	...	...
At Sitchaung Police Station	..	1	...	4	8	13	...	...	..	...	...	...
At Pantanaw Po'ice Station	...	3	...	12	14	29	...	.	...	...	...	20
At Inma Police Station ...	...	...	...	1	6	7	...	...	...	...	...	...
At Zayathlagyi Police Station.	...	2	...	5	6	13	...	...	...	...	...	...
At Yandoon Police Station	...	3	...	15	25	43	...	...	...	...	...	25
At Mezali Police Station ...	...	2	...	5	7	14	...	...	...	...	..	...
At Danubyu Police Station	...	3	...	14	22	39	...	...		...	...	20
At Sagagyi Police Station	...	1	..	3	7	11	...	...	...	...	..	...
At Tawkwe Police Station	...	1	...	3	8	12	..	...	...	..	...	...
(ii) Total at Posts ...	...	21	...	85	145	251	...	...	...	...	...	65
(iii) Total for duty [totals of (i) and (ii)].	5	29	...	89	181	299	...	2	2	2	...	145
(v) Reserve for sick and on leave and training.	...	3	...	...	41	44	...	...	...	...	...	.
GRAND TOTAL ...	5	32	...	89	222	343	...	2	2	2	3	145

Distribution and strength after the adoption of the recommendations of the Police Enquiry Committee.

Distribution. (1)	District Superintendent of Police. (2)	Assistant Superintendents of Police and Deputy Superintendent of Police. (3)	Inspectors. (4)	Sub-Inspectors. (5)	Station Writers. (6)	Head Constables. (7)	Constables. (8)	Total of all ranks excluding Inspectors of Police and upwards. (9)	Menials. Peons. (10)	Menials. Punkah-pullers. (11)	Menials. Sweepers. (12)	No. of Drill Instructors. (13)	No. of Indians. (14)	No. of Clerks. (15)	Military Police sanctioned for District. (16)
District Staff and Headquarters Lines.															
Gazetted Officers	1	2	...	...	...	...	...	...	...	...	...	...	...	...	...
Circle and Town Inspectors.	...	...	3	...	...	...	...	...	...	...	...	...	...	...	...
Prosecutors ...	...	...	1	6	...	...	...	6	...	...	...	...	...	...	...
Depôt Staff ...	...	...	...	1	...	1	...	2	...	...	...	...	...	...	...
Readers ...	...	...	...	1	...	...	...	1	...	...	...	...	...	...	...
Escorts ...	...	...	...	...	...	1	14	15	...	...	...	...	...	...	...
Detective Staff ...	...	...	1	2	...	...	...	3	...	...	...	...	...	...	...
Buglers ...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...
Store-room orderly	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...
Clerks and Menials	...	...	...	...	...	...	...	...	5	2	5	...	...	12	...
(i) Total District Staff and Headquarters Lines.	1	2	5	10	...	2	16	28	5	2	5	2	50	12	70
Stationed and Outposts (including those at Headquarters of District).															
At Maubin Police Station.	...	...	...	7	2	4	34	47	...	...	...	...	...	...	...
At Kawetkin Police Station.	...	...	...	3	1	1	13	18	...	...	...	...	...	...	...
At Pantanaw Police Station.	...	...	...	5	2	3	26	36	...	...	...	...	...	...	...
At Zayathlagyi Police Station.	...	...	...	3	1	...	14	18	...	...	...	...	...	...	...
At Yandoon Police Station.	...	...	...	5	2	6	41	54	...	...	...	...	...	...	...
At Mezali Police Station.	...	...		3	1	...	12	16	...	...	...	...	...	...	...
At Danubyu Police Station.	...	...	...	8	2	5	40	55	...	...	...	...	...	...	...
(ii) Total of Posts	...	...	...	34	11	19	180	244	...	...	...	...	...	...	...
Total for duty [totals of (i) and (ii)].	1	2	5	44	11	21	196	272	5	2	5	2	50	12	70
Reserve for sick, leave and training.	...	...	...	6	...	...	34	40	...	...	...	...	...	...	...
Grand Total ...	1	2	5	50	11	21	230	312	5	2	5	2	50	12	70

The Military Police Posts at Pantanaw, Danubyu and Yandoon, the Outposts at Inma, Yelegale and Sitchaung, and the Police Stations at Tawkwe and Sagagyi were abolished in the latter part of 1924.

The Police have a Co-operative Credit and Supply Society founded in 1921. There were 261 members at the end of 1927. The capital of the society on the 31st December 1927 was Rs. 5,471-6-3 while the loans outstandings amounted to Rs. 2,850. There is a restaurant and a coffee stall run by the society. The Police Club, instituted in January 1925, has proved useful. It is situated at headquarters and has a billiard table and accommodation for outstation members.

Jail.

Maubin possesses a third class District Jail. It is situated on the Strand facing the river. The Civil Surgeon is *ex-officio* Superintendent of the Jail. The staff consists of 3 jailors and 23 warders. There is accommodation for 288 prisoners and the average daily population in 1927 was 254 against a mean for the five years ending 1927 of 196. The total expenditure for the jail in 1927 was Rs. 29,157 and the cash earnings Rs 6,842-1-4.

The number of prisoners admitted in the year 1927 was as follows:—

		Males.	Females.
Burman Buddhists	...	391	56
Mohamedans	...	3	...
Hindu and Sikhs	...	11	...
Other classes		16	...
Total.	...	421	56

Ecclesiastical, Roman Catholic.

There are two missions, one at Maubin and the other at Yandoon. The latter is of earlier origin being first established about 1870 whereas the Maubin mission was started in 1880.

The Yandoon Mission.

Father Bomenico Carolli, a secular priest from Italy, was the first missionary to preach the Gospel to the Karens living along the Panhlaing River. He succeeded in baptizing a certain number of them at Talaingdat (တလိုင်းတဒ်)။

About 1878 Father Devos established his residence at that place. Father Devos died in 1878. Father Gandon took charge of the mission for a few years. He was recieved by Farther Sadoux. In 1882 Father Perret was sent as assistant to Father Sadoux. In 1886 Father Perret went to Rangoon, and he was succeeded by Father Kromer. Father Kromer built the present Church at Yandoon. He left for France in 1895. Father Seve, a young priest was

sent to Yandoon at the end of 1896 but remained only up to March 1897. Father Ballenghien succeeded Father Seve. In 1902 Father Cardot sent Father Carolus to assist Father Ballenghien. In 1905 Father Ballenghien went to Shwegyin to open a new christian centre, and he was replaced at Yandoon by Father Tanjelan for 15 months. Father Ballenghien came back in 1906 and remained till 1915. Father Stephen who was sent in 1910 as an assistant took charge of the mission when Father Ballenghien went back to France in 1915, and he remained here till the end of 1919, when Father Ballenghien came back again. He still remains in charge of the mission and he has been assisted by Father Joachim. There are at present two substantial buildings in charge of the mission. One is used as a girls' hostel and the other as a boys' hostel. Three nuns, all certificated teachers, look after the girls. The school established by the mission is a mixed one. It is a vernacular middle school, and has at present 48 boys and 22 girls. The mission has opened 5 elementary and 2 middle schools in the villages. In one school English is taught. The Christian population connected with the Yandoon mission is about 1,100 composed almost entirely of Karens. Sgaw Karens form the majority. There are nearly 200 Pwo Karens.

The Maubin Mission.

In the year 1880 Father Thomas, an indigenous priest, was an assistant to Father Dominico Tarolli (generally known as Father Domingo) at Kunta, a place not far from Rangoon on the Dalla side. After some time, Father Domingo left for Myaungmya, Father Thomas being in charge of the Christians at Kunta and its surroundings. Not long afterwards Father Thomas removed his residence to Letpan, a place near Kunta. At Letpan, Father Thomas had a substantial wooden building erected with the help of a generous benefactor, Mr. J. B. Pereira of Rangoon. In the year 1887, Bishop Bigandet sent Father Joseph, another indigenous priest, to Father Thomas as an assistant. One or two years later, Father Joseph went to settle down at a place called Letkokpin, in the Pantabut Chaung as most of the Christians had come away from Letpan and other places to Letkokpin for the purpose of cultivating the land which had become arable on the construction of the Maubin Island Embankment. Father Joseph had a wooden chapel built of thatch roofing, one portion of it being reserved for his bed and the other for divine service. One day after divine service in the morning, one of the devotees had left some candles lit in front of the altar. A cloth screen, hanging from the roof, which was playing in the wind near the

lighted candles, caught fire, and set the whole building ablaze. Everything in the building was destroyed. After this desastrous event, Father Joseph went to stay at Zayatkon, not far from Letkokpin. In the year 1894, Father Joseph was transferred to Bassein. Then Father Thomas, who was at Letpan, had his building removed from Letpan to Medawzu near Letkokpin, on the other side of the Pantabut Chaung. At Medawzu, Father Thomas, who was well versed in Burmese had Father Granger, a young priest from France, as assistant. In the year 1898, Father Thomas died and was buried at Medawzu. He was succeeded by Father Chagnot, whose lamentable death took place at Maubin on the 11th April 1927. Father Chagnot, finding Maubin to be well situated for missionary labours, had the building from Medawzu removed to Maubin in 1901. Father Chagnot was murdered on the 11th April 1927 by one of his own pupils. A few years ago he managed to erect a brick Church in spite of financial difficulties. Under his management one mixed Middle Vernacular school for boys and girls, taught by certificated teachers, was established at Maubin. It has at present 72 pupils. His successor, Father Cassinger, still remains in charge. At present the Catholic population in charge of the Maubin Mission is over 1,000, nearly all of whom are Karens.

The American Baptist Mission.

Mission work among the Karens is carried on by three parties of missionaries—on the north by the Henzada Karen Mission, on the south by the Rangoon Sgaw Karen Mission and for the whole district as well as for neighbouring districts by the American Baptist Pwo Karen Mission.

The first American Baptist missionary to establish himself in the district was the Rev. D. L. Brayton. Seeing the scope there was for the propagation of the gospel among the Pwo Karens and having decided to devote his whole life to work among these people, he left Moulmein, where he had been residing, in 1854 and proceeded to Rangoon to commence his labours. He went up the Irrawaddy as far as Danubyu. There in a *zayat* he began to preach to a group of Pwo Karen women who were passing by. He stayed on and preached to others, and remained at Danubyu with his family for fifteen months. He went touring about the district preaching among the Pwo Karens, while his wife and daughter opened a small school for the children of the town and themselves taught those who came. In May 1855, having come to the conclusion that Rangoon would be the proper place for the headquarters of the mission, they moved there; and

Rangoon remained the headquarters till 1879 when the Rev. W. B. Bushell, who was now in charge, shifted to Maubin.

From 1880 to 1893 the Rev. W. B. Bushell laboured among his fold, and when he left the place in 1893 for Moulmein, much progress had been made. His work was continued by the following missioneries :—

The Rev. and Mrs. W. E. Fletcher (1894-98).
The Rev. and Mrs. B. P. Cross (1899-1 ,05).
The Rev. and Mrs. W. Clark (1906-09).
The Rev. C. E. Chaney and Mrs. Chaney (*nèe* Eastman, (1909-10).
The Rev. C. E. Chaney (1910-16).
The Rev. C. E Chaney and Mrs. Chaney (*nèe* Northrup) (1916-24)

The missionaries were preachers as well as teachers, for they all taught in the American Baptist Mission Pwo Karen School at Maubin.

The Co-operative Credit Societies.

The number Co-operative Credit Societies in the district is as enumerated below :

69 Primary Agricultural Co-operative Credit Secieties.
7 Urban Co-operative Credit Societies and Town Banks.
2 Salary Earners' Co-operative Credit Societies.
2 Township Headman's Co-operative Credit and Saving Societies.
8 Tenancy Co-partnership and Credit Societies.
14 Unions

102

The Primary Agricultural Co-operative Societies are distributed as follows :—

22 in the Maubin Township.
17 in the Pantanaw Township.
3 in the Yandoon Township.
27 in the Danubyu Township.

The Urban Societies and Town Banks are situated at township headquarters as follows :—

(1) The Maubin Town Bank at Maubin.
(2) The Pantanaw Urban Co-operative Credit Society at Pantanaw.
(3) The Yandoon Urban Co-operative Credit Society at Yandoon.
(4) The Danubyu Urban Co-operative Credit Society at Danubyu.

On the whole the Co-operative Credit Societies, as in the case of many of their kind in other parts of the Province, have not met with the success that was expected. Mismanagement prevails in too many societies. The Co-operative Societies Department is at present actively engaged in liquidating a large number of societies all over the Province and it is expected to succeed soon in placing the societies on a sound basis and in getting rid of all those that have been badly administered.

The Agricultural Department.

Until recent years, the Agricultural Department appears to have been handicapped by the shortage of trained staff. Prior to the formation of the Irrawaddy Circle as a separate charge in 1922, Maubin District, like the other districts in the delta, was included in the Southern Circle, which comprised the whole of Lower Burma. It was not possible until 1927 to post a Senior Agricultural Assistant to this district. During the year 1928 155 acres of land were acquired at Pantabut about four miles from Maubin, for a District Seed Farm. This farm will serve as the centre for the supply of pure, improved seed-paddy to cultivators in the district. It is being equipped with the necessary buildings including an office, quarters for the staff and a large seed godown.

The improved strains of paddy being grown at the seed farm have been tested and found eminently suited to local conditions, where these are normal. A large portion of the cropped area in the district, however, suffers from abnormal conditions in that it is flooded, frequently to a depth of 12 feet or more. On such land it is possible to grow only deep water or flood-resisting varieties of paddy, which are capable of growing to a great height thereby keeping above the level of the water. All the known types of flood-resisting paddy have grains of very inferior milling quality, and therefore sell at a great discount. The problem of evolving superior types of paddy for the flooded tracts in Maubin District is receiving the attention of the Agricultural Department.

Recently tractors have been introduced for the preparation, during the dry season, of land in these parts. It is claimed that their use makes it possible to prepare large areas before the break of the monsoon with the result that the seed can be sown in good time. The young plants are thus able to established themselves before the water rises. The Department is undertaking to ascertain whether the use of tractors is strictly economic.

An Agricultural and Co-operative Conference, with an agricultural produce show, was held at Maubin in March

1927 with the help of the local officials and a few prominent landlords.

In addition to the distribution of improved seed, the Agricultural Department has introduced improved ploughs, known as "Theikpan ploughs." During the period of five years ending 1928 a total of 3,524 baskets of seed paddy and 261 Theikpan ploughs were issued to cultivators in the district. Of the above, 2,493 baskets of paddy and 147 ploughs were issued in 1928 alone. From this it will be seen that the influence of the Agricultural Department is only just beginning to be felt in the Maubin District, and that both its seed and its implements are appreciated.

The total area under pure seed distributed by the Department during the current year is estimated at about 6,000 acres.

In respect of agricultural improvement, far less progress has been made in the Maubin District than in the neighbouring districts of Myaungmya and Bassein.

Public Works Department. Of the Public works in the district, the one of chief importance is the maintenance of the many miles of embankments which line the banks of the Irrawaddy River. The embankment administration is under the charge of the Executive Engineer, Embankment Division, who resides at Henzada. He is assisted by two Subdivisional Officers, one stationed at Yandoon and another at Maubin. Roads and buildings are under the charge of the Executive Engineer, Delta Division, who resides at Myaungmya. He is assisted by a Subdivisional Officer residing at Maubin. The public works in the district consist mainly of the maintenance of the necessary court houses and public offices, a few rest-houses and officers' residences. There are also a few roads maintained by the Public Works Department.

Posts and Telegraphs. Post offices are under the charge of the Superintendent of Post Offices, Irrawaddy Division, resident at Henzada. There is a Head Post Office at Maubin and Sub-Post Offices at Yandoon, Danubyu, Sagagyi and Pantanaw. There are Branch Post Offices at Sitchaung, Yelegale, Kyonsok, Thongwa and Kawetkin, all of which are situated in the Maubin Township.

There are Telegraph offices at Maubin, Yandoon, Danubyu, Sagagyi and Pantanaw.

Land Records Department. The staff of the Land Records department consists of one Superintendent of Land Records, five Inspectors, and fifty-five surveyors.

Veterinary Department.

There are two Veterinary Assistants.

Registration.

The Deputy Commissioner is the Registrar for the district and the Treasury Officer is the Joint Registrar for the whole district and Sub-Registrar for the Maubin Township. The Township Officer and the Township Judge are Sub-Registrars for the Pantanaw Township; the Subdivisional Officer, the Township Officer, and the Township Judge are Sub-Registrars for the Yandoon Township; and the Township Officer and the Township Judge are Sub-Registrars for the Danubyu Township. The routine work is carried out by Non-official Joint Sub-Registrars, who since 1906 have been Government pensioners.

CHAPTER X.

REVENUE ADMINISTRATION.

Historical; Land Revenue—Early Settlements; Summary enhancement of 1880; First Regular Settlement; First Revision Settlement; Second Revision Settlement; Income-tax; Excise; Fishery Revenue.

Historical.

Little appears to be known of the Revenue system of the Maubin district under the Burmese kings but it appears that the country was parcelled out into governorships or "myos" and a fixed amount of revenue was expected from each governorship. The "myo" was divided into circles and the circles into villages. The most important tax was one on families corresponding to the *thathameda*-tax of Upper Burma but the distribution was made according to the reputed wealth which was based more or less on the land owned or worked by each of the assessees. But this method was gradually replaced by a plough tax based on the number of yoke of cattle used by the cultivator. In places where no plough cattle were used, it took the form of a tax on the *dah* or rather the the man who used it. The amount of plough tax was said to be 30 ticals of silver which was considered to be equivalent to about one-fifth of the gross outturn. Paddy was worth in those days about 10 to 15 ticals of silver per 100 baskets. Besides the plough tax, there were many other imposts under the Burmese regime, such as a tax on brokerage, transit dues, dues on the sale of the cattle, varying dues on all kinds of produce, levies from the fishery

workers, fees in law suits and criminal fines and the costs of the "myosa's" presents to the king at the commencement of the year which were all wrung from the people in an arbitrary manner. Then there were sometimes emergency calls from the king's treasury which took the form of an imposition of 33·1/3 ticals of silver from each house in 1798, a tax which took two years to collect, but of which only a percentage reached the coffers of the King.

Land Revenue —Early Settlement.

After the annexation of Pegu in 1852, the existing Burmese system was superseded by the imposition of acre rates which were uniform within each circle but varied from Re. 1 to Rs. 2 in different circles. The area for assessment was measured by the *thugyi* but this could only have been a rough approximation as few took the trouble to carry out the work correctly. About 1859-60, the circle was replaced by the *kwin* as a unit of assessment but apparently the same rates continued to be in force as no records exist of any revision.

In 1869-70 a rough settlement based on a consideration of the nearness or otherwise of the Rangoon market and the fertility of the soil was carried out and the following rates were imposed by circles and also by kwins in certain tracts :—

	Rs. A.
Hnègyo and Kanngu Circles ...	1 12 per acre.
Thayaing Circle	1 12 ,,
Ingabu	1 8 to Rs. 2 per acre.
Yandoo	2 0 per acre
Kattiya	2 0 to Rs. 2-4 per acre
Thongwa	1 8 to Rs. 2 per acre.

Besides determining the rates per acre, the operation included the granting of leases of large holdings for a term of 5 to 10 years to those owners who were willing to accept the terms offered. The settlements were entered into with villages or parties who contracted to pay during the term fixed, a definite sum as revenue on a limited area. A concession was made that the land would be left unmeasured during the period of the settlement and that the adjacent waste if brought under cultivation was to pay no extra revenue until the term of the lease expired. The object of this was to induce cultivators to take out individual leases for a term of years and thus save the expense and annoyance of annual remeasurements and at the same time facilitate the collection of revenue. The desire to stimulate expansions of cultivation was no doubt also one of its objects. Some of the owners apparently regarded the scheme with suspicion and mention is made in

Mr. Mathews' settlement report of 1889 of the refusal of the owners of certain circles to accept a settlement. In these cases, acre rates were imposed, based on a measurement by the *thugyi*.

Summar enhancement of 1880.

In 1880 a preliminary enhnacement of 25 per cent. on the existing rates was ordered. This was part of a general measure of enhancement throughout the paddy producing districts of Lower Burma consequent on the large increase in the price of paddy. Excepting in Yandoon, Tage and Ingabu Circles, a general enhancement was made by the Deputy Commissioner after a local enquiry and the increases varied from 59 per cent. in the Inzaya Circle to 25 per cent. in the Pantanaw Circle. The enquiry preliminary to this enhancement can hardly be described as a settlement as it was more or less of a summary nature. It was about this time that the general question of the share of the produce which the State was entitled to take as land revenue, came under discussion and it was ultimately decided that the theoretical maximum of one half of the nett profits after deducting from the value of the gross produce the cost of cultivation and the cost of living, should be aimed at.

First Regular Settlement.

The first regular settlement of the district, on the lines of an Indian settlement, was started in 1888-89 by Mr. Mathews who completed in that year, the settlement of 27 *kwins* which formed part of the Zayathla Circle of the Pantanaw township. The next year saw the inception of settlement operations over the whole of the area which now comprises the Danubyu Yandoon and Pantanaw townships. The work was continued by Mr. Mathews in the following year and the remainder of what was then known as the Thongwa district, comprising the present townships of Maubin, Dedaye and Pyapôn was settled.

The settlements done during the years 1888 to 1891 were a great improvement on the existing order of things because the previous rates were fixed after a summary enquiry and inequalities in incidence were inevitable. No attempt had hitherto been made to classify the soil according to fertility and the incidence of the taxation on the good and bad lands was therefore the same. At Mr. Mathews' settlement statistics were collected for the first time, the soil was classified in two grades, the cost of cultivation and the cost of living were calculated on sound lines and an estimate of the fertility of each soil class was made in accordance with a series of crop reapings. The whole country was divided into assessment tracts composed of *kwins* similar in fertility, cost of cultivation and proximity

to a central market. Eight assessment tracts subsequently reduced to three were formed in the area settled in 1889-90 and rates varying from Rs. 1-6-0 to Rs. 2-8-0 were proposed involving an increase of Rs. 43,927 or 16·30 per cent. on the existing demand. In considering the report, the opinion was expressed that the proposed rates were only half the rates obtained by the half net produce standard in no less than five tracts, 35 per cent. and 70 per cent. in two tracts and about equal in one tract only. It was considered that too liberal an estimate was made of the cultivator's outlay while his resources were much underestimated with the result that too large a reduction was made of the deduced and theoretically correct rates of assessment. Accordingly a higher pitch of assessment was ordered in view of the fact that the price of paddy had remained consistently high for a number of years. Assessment rates varying from Rs. 1-8-0 to Rs. 3 were sanctioned, involving an increase of Rs. 1,05,407 or 39 per cent. of the current demand. In order to avoid a sudden enhancement, a lower scale of rates was sanctioned for a period of five years in five tracts. In the report on the operations of 1890-91, that is for the Maubin, Dedayè and Pyapôn townships, Mr. Mathews based his proposals on the rates sanctionnd by Government in the previous year and his proposals were all accepted. A rate of Rs. 3 per acre on gardens and Rs. 2 per acre on miscellaneous cultivation was also imposed. The financial result of the settlement of 1890-91 was a demand of Rs. 7,65,251 or an increase of 34 per cent. on the current demand. In arriving at the proposed rates of assessment, Mr. Mathews assumed the selling price of paddy at Rs. 53 to Rs. 63 for the three townships of Yandoon, Danubyu and Pantanaw while the selling price of Maubin township, owing to the proximity of the Rangoon market was fixed at Rs 66 to Rs. 74. The price of paddy at Rangoon then was Rs. 70 and Rs. 80 respectively. The net result of the first regular settlement of the district was an increase of Rs. 1,22,917 or 29 per cent on the existing revenue.

First Revision Settlement.

Mr. Mathews' settlement of the Danubyu, Yandoon and Pantanaw townships was sanctioned for a term of 15 years and the rates did not expire till the 1st July 1906. The rates for the Maubin township did not expire till a year later. The revision settlement of Danubyu, Yandoon and Pantanaw townships was undertaken by Mr. Lowry in 1904-05 while that of Maubin township was done in the following year by Captain Ormiston. The area resettled by Captain Ormiston included not only the Maubin but also the eastern parts of the present Moulmyainggyun township.

In the interval between the two settlements, there was a remarkable increase in the area under cultivation. The increase was 127,565 acres in the area revised by Mr. Lowry and 68,104 acres in that done by Captain Ormiston. The rise in the price of paddy since the first settlement made it possible for Mr. Lowry to assume local selling prices at Rs. 80, Rs. 85 and Rs. 90 in the three price tracts adopted, as compared with Rs. 53 to Rs. 63 assumed by Mr. Mathews in 1889-90. Captain Ormiston after making allowance for the fact that the Maubin township was much closer to the central market, assumed slightly better prices of Rs. 85, Rs. 89 and Rs. 94, as compared with Rs. 60 to Rs. 74, the prices adopted at the previous settlement. The second settlement of Messrs. Lowry and Ormiston was similar to the first regular settlement as regards soil classification and price tracting, but the substitution of the quarter net produce standard for the half net profits of the previous settlement, was a noteworthy change. An attempt was made at the second settlement to distinguish more correctly the varying degrees of productiveness in different parts of the settlement area by the formation of soil or fertility tracts which were imposed on the price tracts to form assessment tracts. Mr. Lowry, the Revision Settlement Officer, recommended rates based on three proportions of the net produce namely, one-seventh, two-fifteenth and one-eighth but Government considered that a higher fraction of the net produce may safely be taken and decided that in tracts where the cost of cultivation exceeded Rs. 9, the proportion should be one sixth and in other tracts one-eighth. The rates finally sanctioned ranged from Rs. 3-4-0 to Rs. 4-4-0 on the first class and from Rs. 1-8-0 to Rs. 2-12 0 on the second class of soil. The total land revenue based on these rates was Rs. 8,35,925 or an increase of 32 per cent. The rates proposed by Captain Ormiston were pitched very high, being based on the full demand of one-quarter of the net produce. The imposition of such rates as Rs. 4 to Rs. 9 on the first class, Rs. 3 to Rs. 7 on the second class and Rs. 3 to Rs. 5 on the third class of soil, though theoretically permissible, would have proved too violent an enhancement and it was decided to take the same proportion of the net produce as in the tracts settled by Mr. Lowry in the previous year. In spite of the drastic reductions in the proposed rates Captain Ormiston's revision settlement of Maubin township produced a revenue demand of Rs. 6,07,440 or an increase of nearly 74 per cent. The net result of the second revision settlement was a demand of Rs. 14,43,371 over the limits of the present district.

The Second Revision Settlement.

In 1925-28 revision settlement operations were undertaken by U Tin Gyi for the whole area previously settled in two sections. The system followed at the previous settlement, of forming assessment tracts by super-imposing on the soil tracts, the price tracts adopted, was done away with and the whole district was divided into twenty assessment tracts, each tract consisting of a number of contiguous *kwins* in which (*a*) the range of fertility was so uniform that it was practicable to divide up the land into a number of assessment classes, (*b*) prices of produce were sufficiently uniform to enable a single price to be assumed for assessment purposes (*c*) the methods of cultivation, rates of hire and purchase of capital requirements were sufficiently uniform to enable the same cost of cultivation to be assumed throughout the assessment tract. The tracting adopted at this settlement was on simple lines and one which could be easily followed. Broadly, the area lying immediately behind the protection of the embankments was formed into a separate tract absolutely secure from the effects of the yearly floods. Behind this area was a moderately flooded tract in which the crops were but partially protected while adjoining it and lying further inland were the precarious tracts in which the crops suffer annually from the annual floods. Areas within the tidal zone, were given special treatment by the formation of tidal tracts as these areas maintain their fertility owing to annual silt deposits from the Irrawaddy River. In the unprotected parts of the district, such as in the Pantanaw and Yandoon townships, the degree and intensity of the flooding experienced every year were the deciding factors. In the protected tracts the rates proposed were based on a proportion of one-sixth of the net produce while in the unprotected areas, the fraction adopted was one-seventh. The classification of gardens was uniform throughout the district and only one flat rate was proposed. Special crop rates were proposed for *mayin* (spring rice), tobacco, betel vine, dhani and "thin." Miscellaneous *kaing* cultivation was divided into two assessment tracts for which separate rates differing from each other by eight annas only were proposed. It is anticipated that the new settlement will give considerable relief to the poorer class of soils, notably those in the lowest levels capable of growing only the tadaungbo varieties of paddy. A large enhancement was proposed in the tracts protected by the Government embankment, the highest being in the area behind the Government embankments round Yandoon island which had increased a great deal in fertility since the previous settlement.

The orders of Government have not yet (September 1929) been passed on the settlement proposals.

Income-tax is collected under the Income Tax Act II of 1886, which was enforced throughout the district from the 1st April 1905. Prior to this income-tax was levied in the principal towns and villages and produced a revenue of Rs. 20,361 in 1890-91. There was a steady increase till 1903-04 when the new Income Tax Act XI of 1903 came into force. Under this new Act, incomes of less than Rs. 1,000 a year were exempted whereas formerly the income was fixed at Rs. 500 per annum. The effect of the new Act was that the tax dropped from Rs. 39,004 in 1902-03 to Rs. 18,096 in 1903-04. On the 1st April 1918, the Income Tax Act IV of 1918 was passed in order to remove some of the existing defects in the machinery and procedure of assessment and appeal and a graduated scale of taxation came into force. The minimum taxable income was raised to Rs. 2,000 in 1919 by Income Tax Act IV of 1919, owing to the rise in the cost of living and the prices of all commodities since the Great War. The tax which was Rs. 40,611 in 1918-19, was reduced to Rs. 27,690 in 1919-20 as a result of the relief given by the new Act. Income-tax.

The Income Tax Act XI of 1922 which came into force from the 1st April 1922 repealed all earlier Acts and amended some of the laws relating to Income-tax and the Super-tax. With an improved phraseology and arrangement, it did much to make clear many doubtful points, and to remove the anomalies which existed in the old Act.

Formerly the Deputy Commissioner was *ex-officio* Collector for the whole district while the Subdivisional Officers of Yandoon and Maubin were Income-tax Officers in their own subdivisions. From May 1926, a whole time Income-tax Officer was appointed for the district and as a result of his activities, the income-tax of the district rose from Rs. 55,642 in 1924-25 to Rs. 90,486 in 1925-26.

The thoroughness of the check now done with regard to the income of all possible assessees has resulted in a steady increase of the revenue from this source

In pursuance of the present policy of discouraging the drink habit and of preventing the illicit manufacture of spirits, the tax on spirits and liquors was raised as high as possible, consistent with the fulfilment of the above two objects and a gradual attempt was made to reduce the number of liquor shops in the district. It is believed that the present number is commensurate with the public demand and at the same time, ensures safety against illicit Excise.

methods. There are in 1928-29 four opium shops, one at each of the township headquarters of Maubin, Yandoon, Danubyu and Pantanaw. There are 33 liquor shops of which 3 are licensed in form F.L. 13, *i.e.*, foreign liquor to be consumed on and off the premises; 2 in form F.L. 12, *i.e.*, foreign liquor to be consumed off the premises; 4 beer shops in form F.L. 10; 3 licenses in form C. S. 1, *i.e.*, sale of country spirit under the distillery system; 21 shops in form C.F.L. 2 for the sale of "hlawzaye." There are also 5 licenses for the sale of denatured spirit and 5 licenses for the sale of opium and its preparations for medical purposes only. The total excise revenue from these sources for 1928-29 was Rs. 3,36,723.

Fishery Revenue. Maubin produces the highest fishery revenue in Burma, contributing no less than ten to eleven lakhs of rupees annually to the provincial revenues of Burma.

The fisheries are usually in fresh water streams connected with the Irrawaddy river. Those on the southern boundary of the district are subject to tidal influence. The most important fisheries are situated in the Pantanaw township, and in the southern portions of Yandoon and Thongwa islands in the Maubin township. The greater part of the fishery revenue is derived from leased fisheries, the income from net licenses being only one per cent. of the total revenue.

The number of fisheries in each township is as follows :—

			Fisheries.
Maubin township	...	...	231
Pantanaw township	...	...	321
Yandoon township	...	...	99
Danubyu township	...	...	115
	Total	...	766

A list of the leased fisheries is given in Volume B—Part I. Table XII of the same volume shows the nearly steady increase of fishery revenue since the year 1893-94.

No records exist of the amount of the fishery revenue which the district produced in Burmese times or in the period prior to the formation of the old Thongwa district in 1875. In 1875-76 the fishery revenue of the old Thongwa district was Rs. 3,27,946. In 1893-94, it was Rs. 6,40,759. In 1903-04 when the present district of Maubin was

constituted, the fishery revenue stood at Rs. 7,71,215. From 1903-04 onwards to the year 1920-21, the variations in the fishery revenue were generally attributed to the favourableness or otherwise of the previous fishing season. There was a noticeable increase in 1921-22 when the fishery revenue rose from Rs. 8,29,735 to Rs. 10,11,204. From this year onwards the fishery revenue has always been over ten lakhs of rupees per annum. Gambling bids were no doubt responsible for some of the large increases but on the whole the steady increase was the result of leasing out the fisheries for a term of years during which time the fishery lessee had the opportunity of improving the fisheries. But it was found that though prices were rising, the increase was not proportionately large and though evidence was not wanting of the handsome profits which fishery lessees made, there was little attempt to improve existing conditions. The sole idea of the fishery lessees was to obtain as much profit as he could so long as the venture proved to be a paying proposition. In order to eliminate gambling bids and at the same time to establish the fishery industry on a stable basis, the fair rent and tender system was tried in the years 1926-27 and 1927-28. In introducing the system it was declared that the idea was to make honesty a commercial proposition and to create a class of fishery lessees from whom it would not be necessary to take security. The system was given up as unsatisfactory in 1928-29. The difficulty of fixing a fair rent for any fishery which was subject to change owing to floods and other causes was insuperable. To allow a fishery lessee to surrender the lease, should the fishery deteriorate and to permit him to continue the lease so long as the venture proved profitable enough, are defects which cannot be ignored lightly because the dispensing of security for payment of rent under this system enabled the fisherman to default and the loss became totally irrecoverable. Nor was it possible for Government to force a fisherman to abide by the terms of his contract to his utter ruination. The term of five years was too long for any fishery in the delta which was the subject of constant change and a reversion to the old system of selling by auction to the highest bidder was therefore inevitable.

CHAPTER XI.

LOCAL SELF-GOVERNMENT.

Maubin Municipality; Danubyu Town Committee; Yandoon Municipality; Constitution of Maubin District Council; Sanitary Works; Civil Work; School Board; Circle Boards.

Maubin. The records do not indicate that Maubin was ever created a Notified area. It was constituted a Municipality on the 1st October 1888. The present number of seats on the Committee as allotted to each ward or community is shown below:—

	Name of Ward.	Seats.	
Burmese Community ...	Upper Ward	... 2	8
	Centre Ward	... 3	
	Lower Ward	... 3	
Mahomedan Community ...	...	...	2
Hindu Community ...	...	...	
	Total	...	12

Rates of General and Service Taxes. *General-tax* is imposed at the rate of 3 per cent. on the annual rental value of all buildings and lands within the Municipality.

Service-taxes.—Scavenging-tax is imposed at the rate of 4 per cent. per annum on the annual rental value of all houses which have private latrines situated within the limits of the Municipality actually served by the conservancy establishment of the Municipal Committee, provided that the minimum scavenging-tax on any one latrine and one bucket liable to the tax shall be Rs 1-4-0 per month.

Latrine-tax is imposed at the rate of 2 per cent. per annum on the annual rental value of all houses which are not provided with private latrine and which are situated within 300 yards of a public latrine within the Municipality, provided that the minimum latrine tax on any one house liable to the tax shall be 6 annas per month.

Water-tax.—In the case of a building which is situated within 200 yards of a public hydrant, but which has no private water connection with the service-pipes of the Committee, water-tax is imposed at the rate of 5 per cent. per annum on the annual rental value of the buildings provided that the minimum water-tax on the building shall be 4 annas per month.

In the case of a building which has private water connections with the service-pipes of the Committee, water-tax is levied at the rate of 6 per cent. per annum on the annual rental value of the building and in addition thereto rupees two per month for the first tap and rupee one per month for each other tap.

Lighting-tax is imposed at the rate of 3¾ per cent. per annum on the annual rental value of all buildings within the Municipality which are situated within 200 yards of any Municipal gas lamp post in a direct line, or are so situated as to derive light therefrom.

Income and Expenditure.

For the year 1928-29 the total income of Maubin Municipality is Rs. 88,826-10-7, as against the total expenditure of Rs. 95,677-4-2 and the expenditure on Public Works is as follows :—

	Rs.	A.	P.
Veterinary charges	...		
Registration of Births and Deaths ...	441	11	0
Establishment	2,928	15	0
Buildings	119	14	0
The expenditure on Public Instruction is	15,072	2	0

Danubyu.

Danubyu Town Committee was formed in the year 1899 and on the 19th April 1923, it was converted into a Municipality. The present number of seats on the Committee as allotted according to each ward or community is shown below :—

	Name of Ward.	Seats.	
Burmese Community ...	Yokethaydan	... 1	10
	Ledatpaing	... 3	
	Zebaing	... 3	
	Taungbaing	... 3	
Indian Community ...	...	...	1
Chinese Community ...	...	...	1
	Total	...	12

Rules of General and Service Taxes.

General-tax is imposed at the rate of 4 per cent. per annum on the annual rental value of all buildings and lands within the Municipality.

Service-taxes.—Lighting-tax is imposed at the rate of 3 per cent. per annum on the annual rental value of all buildings which are situated within 100 yards of any Municipal lamp post in a direct line or which are so situated as to derive light therefrom.

Scavenging-tax is imposed at the rate of 12 annas per mensem (per bucket) on all houses which are actually served by the Municipal Conservancy establishment.

Latrine-tax is imposed at the rate of 6 annas per mensem per house on all houses which are situated within a distance of 200 yards from a public latrine and which are not assessed to the scavenging-tax.

Income and Expenditure.

Water-tax is not imposed in the Danubyu Municipality.

For the year 1928-29 the total income of Danubyu Municipality is Rs. 54,071-3-2 as against the total expenditure of Rs. 49,862-3-0, and the expenditure on Public Works is as follows:—

	Rs.	A.	P.
Veterinary Charges	...		...
Registration of Births and Deaths ...	95	0	0
Establishment	...		...
Buildings	...		...
The expenditure on Public Instruction is	11,242	9	0

Yandoon.

Yandoon was created a Municipality on 2nd January 1885. The present number of seats on the Municipal Committee as allotted according to each ward or community is shown below:—

	Name of Ward.	Seats.	
Burmese Community ...	Myenu Ward	2	10
	Tawadaintha Ward	4	
	Kyundeik Ward	4	
Mahomedan Community	... ...	...	1
Hindu Community	... ...	...	1
	Total	...	12

Rates of General and Service Taxes.

General-tax is imposed at the rate of 3 per cent. per annum on the annual rental value of all buildings and lands situated within the limits of the Municipality.

Service-taxes.—Scavenging-tax is imposed at the rate of 6 per cent. per annum on the annual rental value of all houses within the limits of the Municipality and are actually served by the conservancy establishment of the Municipality.

Latrine-tax is imposed at the rate of 4 per cent. per annum on the annual rental value of all houses which are not provided with private latrines and which are situated within 300 yards of a public latrine within the Municipality.

Lighting-tax is imposed at the rates specified below on all buildings, within the Municipality, which are situated within 100 yards of any lamp post in a direct line, or are so situated as to derive light therefrom.

Rates for areas provided with Oil-lamps.

	Per annum. Rs. A. P.
(1) For a building having not more than 10 feet of street frontage.	0 6 0
(2) For a building having more than 10 feet but not more than 20 feet of street frontage.	0 12 0
(3) For a building having more than 20 feet but not more than 30 feet of street frontage.	1 4 0
(4) For a building having more than 30 feet but not more than 40 feet street frontage.	2 0 0
(5) For a building having more than 40 feet but not more than 50 feet of street frontage.	3 0 0
(6) For every additional 10 feet or part of 10 feet of street frontage.	0 4 0

Rates for areas provided with Electric lamps.

Three per cent. per annum on the annual rental value of the building liable to the tax.

Water-tax is not imposed in the Yandoon Municipality.

For the year 1928-29 the total income of Yandoon Municipality is Rs. 97,764-4-3, as against the total expenditure of Rs. 1,11,586-15-0, and the expenditure on Public Works is as follows:— **Income and expenditure.**

	Rs. A. P.
Veterinary Charges	.
Registration of Births and Deaths ...	120 0 0
Establishment	680 0 0
Buildings	...
The expenditure on Public Instruction is ...	19,761 12 0

The Maubin District Council, constituted under section 3 of the Burma Rural Self-Govrnment Act, 1921, succeeded the old defunct District Cess Fund from the 3rd February 1923. There were no areas excluded from the operations of the Act. The District is divided into 12 Circles with 131 members distributed as follows:— **Constitution of Maubin District Council.**

Name of Township.	No.	Name of Circle Board.	Number of Members.
Danubyu	1	Kyaungsu ...	12
Danubyu .. .	2	Sagagyi ..	11
Danubyu	3	Thabyu ...	11
Yandoon	4	Thabyechaung ...	11
Yandoon	5	Mezali ...	10
Yandoon	6	Kyontama ...	10
Pantanaw	7	Mingayu ...	10
Pantanaw	8	Zayathla ...	11
Pantanaw	9	Pantanaw ...	12
Maubin	10	Yelegale ...	11
Maubin	11	Maletto ...	11
Maubin ...	12	Kawetkin ...	11
4	12	12	131

The district Council is composed of 27 members; 2 representatives from each Circle and 3 co-opted members, *viz.*, the Civil Surgeon, the Subdivisional Officer, Public Works Department and the Veterinary Inspector.

During the transition period (from 3rd February 1923 to 31st March 1923) the District Council held two meetings while Circle Boards held a meeting each.

The following shows the number of meetings held and the average percentage of attendance of members of each meeting of the District Council and Circle Boards during the year 1923-24:—

No.	Name of Local Body.	Number of meetings.	Average percentage of attendance at that meeting.	Remarks.
1	District Council ...	6	60·71	
	Circle Boards.			
1	Kyaungsu	5	55·00	
2	Sagagyi	4	77·27	
3	Thabyu	3	72·73	
4	Thabyechaung ...	4	67·50	
5	Mezali	4	77·78	
6	Kyontama	6	55·00	
7	Mingayu	5	32·00	
8	Zayathlagyi ...	4	63·33	
9	Pantanaw	4	67·30	
10	Yelegale	3	51·52	
11	Maletto	2	57·57	
12	Kawetkin	3	63·33	

The main source of income of the Fund is from Cess on the Land Revenue collected by the Deputy Commissioner. Owing to the Closing Balance being only Rs. 55,571 at the beginning of the year 1923-24 as against Rs. 1,23,504 in the preceding year the Council had to meet its liabilities by obtaining the sanction of the Local Government to a temporary contribution of Rs. 60,000 which was repaid within the year when Cess collections were received.

The following shows the amount of Revenue and Expenditnre from Main Heads during 1923-24:—

Revenue.

Opening Balance.	Cess on Land Revenue.	Other Taxes and Rates.	Grant by Government.	Bazaar Rents and Collection.	Other Receipts.	Total.
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs
55,571	1,14,718	13,792	67,000	18,533	8,552	2,22,595

Expenditure.

Administration.	Education.	Medical.	Public Health.	Public Works.	Refund.	Other expenditure.	Total.
Rs	Rs	Rs	Rs	Rs.	Rs.	Rs.	Rs.
11,931	72,790	13,794	20,656	63,025	64,158	10,585	2,56,939
					Closing	Balance	21,228

Sanitary Works.

Conservancy Staffs are entertained in P ntanaw and Sagagyi Towns. Two Sanitary Inspectors were entertained by the Council to look after Village Sanitation. Eight Vaccinators under an Inspector are also employed by the Council.

Civil Work.

Works were carried out through the agency of the Public Works Department by payment of overhead charges of 24 per cent. of the cost of works.

There are 7 Ferries administrated by the Deputy Commissioner who credits the license fees to the District Council.

There are 2 Ferries the boundaries of which fall both in this and in the adjoining district, and the District Council receives its due share of the fees.

There are 4 Veterinary Assistants under an Inspector to look after the health of the cattle in the district.

School Board.

The District Council has elected 9 of its members to form a School Board and has co-opted 3 Deputy Inspectors of Schools for their professional advice.

The income of the Boards was Rs. 77,062 of which Government's contribution is Rs. 3,810 for English Teachers and the rest is from the District Fund. The expenditure on Grant-in-aid alone was Rs. 76,521 out of Rs. 76,697.

Circle Boards.

The functions of the Circle Boards were (1) to receive payments for credit to the District Fund, (2) to disburse salaries to employees stationed within their jurisdictions

and (3) to Control Bazaars, Cattle Pounds, Slaughter Houses and Conservancy staffs in their jurisdictions subject to the general control of the Council. There was no Circle Board Fund opened during the year.

CHAPTER XII.

EDUCATION.

At the close of the year 1928-29 there were 575 schools of all kinds with 19,544 pupils in attendance. Public schools, Anglo-Vernacular and Vernacular, numbered 239 with an attendance of 15,965 pupils, 10,196 boys and 5,769 girls. Private schools, all vernacular and mostly monastic, numbered 336 with 3,579 pupils, 3,463 boys and 116 girls.

Of Public Vernacular Schools, 154 were Burmese, 76 Karens and 1 Urdu attended by 11,419, 3,087 and 50 pupils, respectively. Public Anglo-Vernacular Schools numbered 8 with an attendance of 1,409 pupils. Of the 231 Public Vernacular Schools, 166 were Pirmary, 61 Middle and 4 High. Of the 8 Anglo-Vernacular Schools, 2 were High and the rest Middle.

The Government Anglo Vernacular High School at Maubin is the largest and the most important in the district. The American Baptist Mission Anglo-Vernacular School at Maubin caters for the Karens. The two National Anglo-Vernacular Schools one at Maubin and the other at Pantanaw, follow the curriculum prescribed by the Council of National Education and approved by the Director of Public Instruction.

Since 1923 Public Vernacular Schools in the district have been controlled and financed (with aid from Government) by four Local Education Authorities, namely, the District School Board, Maubin, and the Municipal Committees of Maubin, Danubyu and Yandoon. The Inspector of Schools, Irrawaddy Circle, under the control of the Director of Public Instruction, is in charge of the Anglo-Vernacular Schools. Besides the Inspector of Schools and his two Assistant Inspectors with headquarters at Bassein, Vernacular Schools in the district are inspected by three Deputy Inspectors of Schools (2 Burmese, one stationed at Maubin and the other at Yandoon, and 1 Karen at Maubin,) and a Sub-Inspector of Schools at Pantanaw. The inspecting officers are also advisers to the Local Education Authorities and attend their meetings.

To facilitate the passage of pupils from Vernacular to Anglo-Vernacular Schools, 12 teachers were employed to

teach Engligh as an optional subject in selected Vernacular Schools. The teaching of English in Vernacular Schools conticues to be popular.

There were also 6 Elementary Training Classes at Maubin, Yandoon, Danubyu and Pantanaw to provide trained teachers for Vernacular Schools. As the Local Education Authorities are unable, owing to lack of funds, to employ all teachers who have received training, some of the Elementary Training Classes are being closed down. It is hoped the financial position of the Local Education Authorities will improve. There is room in the district for more aided Vernacular Schools, and some of the existing ones also need to be more adequately staffed.

CHAPTER XIII.

PUBLIC HEALTH.

General Administration of Public Health; Hospitals and Dispensaries; Diseases commonly treated; Vital Statistics; Water Supply; Conservancy; Infant Welfare; Venereal Clinic.

General Administration of Public Health.

At the head of the Public Health Administration of the district is the Civil Surgeon. He is assisted in each township by the Sub-Assistant Surgeon in charge of the Hospital at township headquarters Vaccination is also under the general supervision of the Civil Surgeon as Superintendent of Vaccination. There are two Inspectors of vaccination, one in charge of each subdivision. There are four vaccinators under each Inspector and these are expected to visit every village in their charge twice a year. The rural vaccination staff is paid by the District Council. For urban areas, the Municipal authorities maintain their own staff of vaccinators. Sanitation is under the general supervision of the Civil Surgeon who is the District Health Officer. He is assisted by two fully qualified Public Health Inspectors, one in each subdivision. Each Municipal town has a qualified Inspector in charge of its sanitation.

Hospitals and Dispensaries.

Each township headquarters has a fully equipped hospital of its own. Maubin as the district headquarters possesses the biggest hospital and is fully equipped for a district hospital.

The hospital at Maubin was opened in 1875. It is a third class hospital, open throughout the year. There is at present accommodation for 51 in-patients, 41 males and 10 females. The number of indoor patients and that of outdoor patients treated during the year 1928-1929 were 619 and

11,663 respectively as against 629 and 11,997 respectively during the previous year. The following percentages of patients treated show that the largest number of patients were those of the Burmese Community :—

Community.	Percentage of patients.
Burmese	58
Hindu	26
Mohamedan	12
Others	4

The hospital is administered under the Hospital Finance Scheme and receives contributions from the Local Government, the Maubin Municipality and the Maubin District Council. The total receipts of the hospital for the year 1928-29, including the opening balance, amounted to Rs. 26,603. The total expenditure was Rs. 19,120.

A new building was recently added to the hospital, the cost being entirely borne by a private benefactor. There is an up-to-date operating theatre, a contagious diseases ward, and a maternity block. A venereal clinic rendering free service was opened in 1927.

The hospital at Yandoon is next in size and importance It was opened in 1876 and is a third class hospital. There is accommodation for 26 in-patients, 20 males and 6 females. The number of indoor patients treated during the year 1928-29 was 494 and that of outdoor patients 12,021, as against 423 and 8,950 respectively in the previous year.

This hospital is also under the Hospital Finance Scheme. It has a small contagious diseases ward with 4 beds. The total income during the year 1928-29 including the opening balance amounted to Rs 12,715 and the total expenditure Rs. 10,341.

The hospital at Danubyu though small, is useful in that it lies on the riverine route for those trading between Rangoon and Mandalay. It has a contagious diseases ward. A maternity ward was recently opened. In the year 1928-29, indoor patients numbered 4,528 and outdoor patients 11,080. The total income of the hospital in 1928-29 was Rs. 18,499 and the total expenditure Rs. 5,768.

The hospital at Pantanaw is conveniently situated for villagers in the Pantanaw Township who would find it very difficult to proceed to another hospital in the district. In the year 1928-29 the total number of indoor patients was 251 and that of outdoor patients was 11,582. The total income of the hospital for the same year was Rs. 26,012 and the total expenditure Rs. 21,115. This hospital also has a maternity block and a contagious diseases ward.

Diseases commonly treated.

The diseases commonly treated are cholera, plague, small-pox, diarrhoea, dysentry, tuberculosis, round worms, venereal disases, respiratory diseases and skin diseases.

Cholera is very common in the district. It takes a severe form as in other Delta districts, and proved fatal every year among a large number of people. The following figures for 1928 and 1929 show how widely prevalent it still is in the district and what is the extent to which prophylactic cholera inoculation is resorted to :—

Year.	No. of attacks.	No. of deaths.	No. of anti-cholera inoculations.
1928 ...	602	525	9,780
1929 ...	436	367	10,571

Anti-cholera inoculation is more popular than anti-plague inoculation. The reason is that the dose required in the latter is three or four times that required in the former and that in the latter high fever, pain, and swelling are generally caused whereas they are absent in the former. Vaccination is perhaps more popular in the villages than in the towns. On the whole, however, it appears to be steadily gaining ground among people of all classes in the district.

Vital Statistics.

Headmen are Registrars of Births and Deaths in the villages, but many of them seem to fail to realise the importance of their duties. They do not seem to have been sufficiently impressed with the need for enquiring carefully into the causes of deaths, and they take but lukewarm interest in their work. The present average annual birth rate for the district is 21·46 per mille and the average annual death rate 15·19 per mille.

Water Supply.

Maubin Town has an excellent water supply system. The water is obtained from deep tube wells and is of good quality. The supply has recently shown a tendency to fall short of the demand, but steps are being taken by the Municipality to increase the supply considerably in the near future.

The supply outside the limits of the Maubin Municipality is unfortunately of poor quality. The District Council appears, however, to be making efforts by the digging of wells, to provide all villages before long with wholesome water in sufficient quantities.

Conservancy. All the municipalities have conservancy systems for day and for night, a Public Health Inspector with a staff of sweepers being employed by each. In day conservancy the street rubbish is swept and carried away to the dumping ground, while in night conservancy what is known as the "bucket system" is adopted. In the Maubin Municipality, the rubbish of the streets is removed in a motor truck while for the night soil waggons running on light rails are used. In the other municipalities, only bullock carts are in use at present in both day conservancy and night conservancy.

Infant Welfare. There is a Society for the Promotion of Infant Welfare at Maubin. It is administered by a Committee composed of ladies of the town. The number of its members is fairly large. It is the only society of its kind in the district.

Each municipality employs a Result-System midwife in addition to the nurse midwife attached to the hospital under its control. There are also three Result-System midwives, stationed respectively at Yelegale, Pantanaw and Mezali, who are paid by the District Council.

Venereal Clinic. A Venereal Clinic at which free treatment could be obtained was opened at Maubin in 1927. Although venereal diseases are fairly numerous in the district, the clinic has not been used as much as it could be. Government gives a fixed annual contribution of Rs. 1,000 towards the expenses of the clinic. The municipality and District Council also give varying contributions to it as occasions arise.

CHAPTER XIV.

MINOR ARTICLES.

Maubin Subdivision; Maubin Township; Maubin; Yelegale Sitchaung; Kywedon; Kyonsok; Maletto; Tani and Thongwa; Kawetkin; Pantanaw Township; Pantanaw; Mingayu and Shwele; Inma, Intakaw and Kyonton; Banit and Pathwe; Wedaung; Zayathlagyi; Kyondainggyi; Pyalin; Yandoon Subdivision; Yandoon Township; Yandoon; Sangin; Smalauk; Mezali; Kattiya; Gangyaung; Danubyu Township; Danubyu; Akyaw; Kyontani; Setkaw; Sagagyi; Famous Pagodas; Maha Bandhula Min.

Maubin Subdivision. The Maubin Subdivision occupies the southern half of the Maubin district. The northern boundary starts from the village of Kyontani and follows the courses of the Bawdi Chaung up to the village of Mingayu; it then follows the course of several small fishery streams first in a north-easterly direction for about six miles and then across the

country due south till it meets the Irrawaddy River just below the large village of Setkaw. It then follows the course of the Irrawaddy River till the village of Mithwe Chaung is reached when it again takes an easterly course across the island of Yandoon till it reaches the Kattiya-yegyaw Chaung just below Kattiya. The eastern, southern and western boundaries coincide with the district boundary. The Subdivision includes the townships of Maubin and Pantanaw. Maubin township formed part of the old Thongwa district before it was split into the Pyapon and Maubin districts in 1903. Pantanaw township formed part of Myaungmya district until the formation of the Maubin district in 1903.

The Maubin township occupies the southern portion of the Maubin subdivision and is divided into three portions, namely, the southern half of Yandoon island, and the whole of Thongwa and Maubin islands Maubin township.

Maubin island is encircled on the north by the Irrawaddy River, on the east by the To River, on the south by the Singu, Khamon and Thaungtu Chaungs and on the west by the main Irrawaddy River. Thongwa island is encircled on the north and east by the To, on the south by the Tayaw Chaung and on the west by the Pantabut River which forms the connecting link between Maubin and the other delta towns like Kyaiklat, Pyapon and Bogale. The township is a large alluvial plain, 503 square miles in area and protected on all sides excepting the southern boundary of each portion, by the Government embankments. Like all islands in the delta, the rim or boundary of the islands is high and above the level of the annual floods while the interior forms a saucer-like depression in which the drainage of the surrounding country accumulates. The southern half of Yandoon island is drained by the Maletto and Tani Chaungs, but the level of the country is so low that much of it is marshy swamp and except on the edges little cultivation is possible. The Maubin island is drained by the Thaungtu-Chaung which forms an efficient outlet for the pent up waters within the island. The drainage of Thongwa island is effected by small streams which unfortunately form part of fisheries and in consequance, much of the interior still remains a flooded waste. The bad drainage is attributed to the presence of a large *myinwunsè*

Almost the whole of the township except the flooded waste is given over to the cultivation of rice. Owing to the protection afforded by the embankments, the crops are always successful and large quantities of grain are exported every year. Miscellaneous *kaing* crops are grown on the

islands in the Irrawaddy and on the inundated lands lying outside the embankments. Holdings are fairly large and the people are on the whole well off. The whole township excepting the southern half of Yandoon island is densely populated and in 1921 the density was 175 persons to the square mile. The majority of the inhabitants are Burmans with a large sprinkling of Karens who are found scattered all over the township. Its population at the last three censuses was:—1901, 72,?79 persons; 1911, 79,6?8 persons, and 1921 89,502 persons. In 1928, the township had 88 village-tracts, and 39? *kwins* with a gross area of 321,851 acres and on occupied area of 203,652 acres

Maubin. Maubin, the headquarters of the district was, as has been mentioned before, only a small fishing village when in 1876 Sir Ashley Eden selected it as the headquarters of the old Thongwa District. In 1877 it had 588 houses and a population of 1178. When Colonel Ormiston settled the district in 1905-06, it had 911 houses and population of 6,623 people. At the census of 1921, the number of houses was 1,147 and the population 6,125. The town derives its name from the presence of a large *mau* tree, the Sarcocephalus Cordatus, near the Gymkhana Club. The original tree was enveloped by a banyan tree and died but Major A. S. B Roberts, the Deputy Commissioner, had another "*mau*" tree planted close to the original one in 1910. Under the shade of this *mau* tree stands the shrine of the guardian *nat* of the town, a place to which all and sundry come to pay their respects, either in case of sickness or on the occasion of a *shinpyu* ceremony. The town has little trade of its own and does not show signs of increasing rapidly in importance. It has a piped water-supply from artesian wells and the roads are electrically lighted. It has an old Court House, built just after the old Thongwa District was constituted, a Circuit House near the river bank and a Dak bungalow situated some distance away from the main road. A new Court House was recently built for the District and Sessions Judge and the Judicial Officers subordinate to him. Government quarters have been provided for the Deputy Commissioner, the Sessions Judge, the Headquarters Assistant, the District Superintendent of Police, the Civil Surgeon and the Superintendents of Land Records and of Excise. These are situated north of the Court House and within easy access of the town. Maubin possesses two clubs. The Gymkhana club for the use of the officers is very old and looks dilapidated in spite of the efforts made to keep it

in good repair. The other club is for the use of Police Officers and was recently built out of the materials obtained from the old Deputy Commissioner's quarters which were dismantled on the departure of the Settlement Officer from Maubin.

Yelegale. A large village at the terminus of the only metalled road in the Maubin township. It lies 9 miles due west of Maubin town and forms an important trade centre. It has a large bazaar and there is an incessant stream of traffic through it as the people living to the north and south of Yelegale come to the village by cart or by cycles along the embankments and then travel to Maubin by motor car. It has a Post Office and a small Public Works Department bungalow for the use of travellers. The Police-station in the village which existed as such till 1925 is now used as an office building for the Land Records Inspector and his staff of surveyors. The village also owes its importance to the fact that it forms the strong hold of landlordism in the western portions of Maubin island. In 1921 it had 885 houses with a population of 4,970 persons, including the adjoining village of Panbinzu.

Sitch-aung. A village of 416 houses situated about 12 miles north of Maubin on the right bank of the Irrawaddy River. It is an important paddy trading centre and is the principal market place of the villages in the neighbourhood. It has a well built bazaar and a Post office. Its population in 1921 was 2,016 persons.

Kywe-don. A village of 282 houses with population of 1,446 people at the north-western corner of Maubin island. It is a centre for paddy export during the dry months of the year. Most of its inhabitants work *kaing* and *mayin* paddy on the islands in the neighbourhood. It possesses a small rest house maintained by the Public Works Department.

Kyonsok An important paddy loading centre 8 miles south of Maubin on the right bank of the Pantabut River. In 1921 it had 305 houses with a population of 1,807 persons. It has a Post Office and also several branches of the Chetty money-lenders living at Maubin and Rangoon.

Maletto. A village situated at the mouth of the stream of the same name, on the left bank of the Irrawaddy River. In 1921 it had 491 houses with a population of 2,695. Its population is entirely dependent on the many fisheries which exist inland along the banks of the Maletto Chaung. The produce of the fisheries is brought down to Maletto and then sent by steamer to Rangoon. Fresh fish is often sent to Rangoon from this village packed in ice.

Tani and Thongwa

Tani is a large village situated at the mouth of the stream of the same name. Thongwa is on the opposite bank of the Irrawaddy River. Both villages are dependent on the many fisheries which exist on Yandoon island. Few of its inhabitants are agriculturists. Large quantities of salted fish, dried fish and fish packed in ice are exported from both these villages. In 1921 while Thongwa had 374 houses with a population of 1, 54.

Kawetkin.

A village situated at the north-east corner of Thongwa island. In 1921 it had 303 houses with a population of 1,704 persons It is an important fishing village and exports arge quanties of dried fish and *ngapi* which are taken in sampans to Rangoon The village noted for the bilsa fish which sent daily to Rangoon by the Irrawaddy Flottilla Company's steamers. It has a small Police outpost

Pantanaw Township.

The Pantanaw township occupies the northern portion of the Maubin Subdivision. It is bounded on the east and south by the Irrawaddy and Shwelaung Rivers and on the north by the Bawdi Chaung and other small fishery streams which divide it from the Danubyu township. The western boundary coincides with the district boundary. The entire area is intersected by a network of small creeks which form part of fisheries. The township is drained by four important streams, the Bawdi, Pantanaw, Thongwa Kinwagyi Chaungs. The Pantanaw river branches off from the main Irrawaddy river a few miles below Yandoon and ultimately joins the Shwelaung River about 6 miles east of the town of the same name. For half its length, from its off take at Kyauksalit to Wedaung, it is unnavigable except during the rains when small launches sometimes use it but the Irrawaddy Flotilla launches either make Wedaung or Pantanaw the terminus according to the season and always use the southern opening. The Thongwa and Kinwagyi Chaungs drain the whole of the western portion of the township. The former is navigable for steamers of light draught up to Kyondaunggyi and the latter up to the village of Pathwe. The township owes its importance to its numerous fishereis which produce yearly a large fishery revenue, the highest in the delta. Owing to the absence of protective works by Government, the greater part of the area is subject to floods and crops are often totally destroyed. The large area of lowlying land to the south of Pantanaw is specially subject to heavy destruction through the action of floods but the people generally make a living by cultivating *kaing* crops which thrive well on the *myenu* formations near the southern edges of the township.

The township covers an area of 501 square miles and has a population of 81,238 persons according to the census of 1921. In 1911, there was a population of only 71,239. Its density in 1921 was 162 per square mile, and is the lowest for the district. This is due to the fact that the large area of lowlying land while offering excellent breeding grounds for the fisherman is practically unculturable or at best gives only a poor crop. In 1928, there were 60 village-tracts and 372 *kwins*, having a gross area of 318,221 acres and an occupied area 158,252 acres.

Situated near the junction of the Pantanaw River with the Bawdi River, it form the headquarters of the township of the same name. Like Danubyu, was also the headquarters of a *myothugyi* under the Burmese rule. In 1887 it had a population of 5,824 souls. It had 989 houses and a population of 4,'7 ; in 1911, but in 1921 there were 1,068 houses and 5,059 inhabitants. **Pantanaw.**

The town has suffered a decline as the Pantanaw river is becoming shallower. During the dry weather, launches can go up the river only as far as Wedaung, the rest of the journey to the town having to be performed by a sampan or a motor boat. There was formerly a considerable trade in *ngapi* and dried and salted fish. A considerable proportion of the inhabitants are now engaged in making mats (thinbyus). It has a small hospital, a bazaar and dak bungalow.

Two villages on the Bawdi River about 12 miles due north of Pantanaw town. Mingayu which has 285 houses and 1,416 inhabitants in 1921 is situated on the western bank while Shwele which has 191 houses with a population of 910 persons is on the opposite bank. Both villages do a considerable amount of trade in the products of the neighbouring fisheries, such as *ngapi* and salt fish. It has an old pagoda, the scene of an annual festival in the month of March. **Mingayu and Shwele.**

These there large villages adjoin each other and are situated on the Inma Chaung, an offshoot of the Kinwagyi-Chaung. In 1921, Inma had 231 houses with a population of 1,225, Intakaw 188 houses with a population of 1,202 and Kyonton 221 houses with a population of 1,147. Intakaw is said to have been the headquarters of a *Penin* under Burmese rule. There is a brass image of Buddha at Kyonton, said to be a replica of the famous Mahamuni of Mandalay. There are also several old pagodas near these villages. The inhabitants are all dependent on the neighbouring fisheries for a living. Only a small percentage **Inma, Intakaw and Kyonton.**

devote their attention to agriculture. Most of the latter are tenants of the fishery lessees who own the greater part of the paddy lands in the vicinity.

Banit and Pathwe. These two villages are situated at the head waters of the Kinwagyi or Zayathla-Chaung and owe their importance to the existance of several large and important fisheries in the neighbourhood. In 1921 Banit had 364 houses with a population of 2,022 and Pathwe 413 houses with a population of 2,364.

Wedaung. A small village situated on the western bank of the Pantanaw River It serves as the terminus of the Irrawaddy Flotilla Company's launches during the dry weather and has a busy appearance owing to the large number of sampans and boats which come from various parts of the township. It has a small dâk bungalow for the use of travellers. In 1921 it had 238 houses with a population of 1,210.

Zayathlagyi. A village on the Kinwagyi or Zayathla Chaung. In 1921 it had 313 houses with a population of 1,741. Its inhabitants are dependent on the neighbouring fisheries for a living. It has a Police-station and a small dak bungalow for the use of travellers.

Kyondainggyi. A large straggling village on the left bank of the Thongwa Chaung near its source. All its inhabitants work in the neighbouring fisheries, some of which are fairly important from the revenue point of view As almost all the houses are engaged either in making *ngapi*, or storing it, the atmosphere of the place is by no means wholesome. In 1921 it had 312 houses with a population of 1,426 persons.

Pyalin. A long straggling village on the Pyalin Chaung, a few miles to the east of Wedaung. In 1921 it had 484 houses with a population of 2,924 persons but the village has declined a great deal since then owing to repeated floods which breached the cultivator's bunds and destroyed the crops almost every year.

Yandoon Subdivision. The Yandoon Subdivision comprises the northern half of the Maubin district. The northern and eastern boundaries coincide with the district boundary. The southern boundary is a line running from a point just below Kattiya village due west to a point near Mithwe Chaung where it meets the Irrawaddy river. It divides the island of Yandoon into two portions, the northern portion falling within the Yandoon township and the southern portion in the Maubin township. The western boundary follows the course of the Irrawaddy from the village of Mithwe Chaung due north till it reaches a point just below the large village of Setkaw ; it then follows the course of small and unimportant fishery streams in a northerly direction till it reaches the

village of Mingayu ; the boundary then continues along the course of the Bawdi Chaung till Kyontani is reached on the borders of the Bassein district. The subdivision includes the townships of Danubyu and Yandoon.

Yandoon Township.

The Yandoon township occupies the southern half of the Yandoon Subdivision and is divided by the Panhlaing River into two portions. The northern portion lies between the Irrawaddy on the west and the Bawle River on the east. Th s area is much subject to floods as the small cultivator's bund from Sangin to Yanginsanya, about 13 miles in length is breached almost every year and the crops are often destroyed on a large scale. In most parts late planting is resorted to and extensive failures are not an uncommon feature of this tract.t

The southern portion of the township is fully protected from the effects of floods by a large Government embankment which encircles the whole of the eastern, northern and western portions of the island. This area is therefore secure from flooding and good crops are obtained every year. The inhabitants of Yandoon island are therefore well off and comparatively free from debt in sharp contrast to the poverty of the people living to the north of the Panhlaing River. In years of unseasonable rainfall or when the Irrawaddy floods are heavy, large remissions of land revenue have to be granted in this area.

The central portion of the area on Yandoon island contains a large Government Estate which is administered by the Administrator of Government Estates, Burma. The township has an area of 340 square miles and its population at the last three censuses was :—1901, 57,923 persons ; 1911, 64,478 and 1921, 72,126. Its density in 1921 was 212 persons to the square mile. In 1928, there were 48 village-tracts and 293 *kwins* having a gross area of 222,066 acres and an occupied area of 153,864 acres.

Yandoon

Yandoon is situated at the junction of the Panhlaing with the Irrawaddy river and is important as the headquarters of the township and subdivison of the same name. In spite of the decrease in its population in recent years on account of the decline of the *ngapi* trade, it still remains a busy trading centre. The *ngapi* trade, though not as large as it has been is still very much in evidence. Traders come from Upper Burma in large " launggos," boats with high carved stems, bringing tamarind, jaggery, sessamum oil and other provisions about September or October and they return with large quantities of *ngapi* brought into Yandoon by traders from the seaside villages of the Pyapon and

Myaungmya districts. The trade at Yandoon has suffered because these traders now show a tendency to take the stuff to Rangoon whence they can send to various places in Upper Burma by rail.

As pronounced in Burmese (Nyaung-don), the town owes its name to a huge log of the banyan tree at the site where a small village of 100 houses existed in Burmese times. The present town sprung up entirely in 1852. In 1877, it had a population of 6,900 persons. In 1911 it had 2,207 houses and a population of 12,500 persons, but at the census of 1921, the number of houses had been reduced to 1,835 and the population to 8,874.

The town possesses a municipality and has electric lights, a conservancy system and a good bazaar.

Sangin. A large village on the left bank of the Irrawaddy River opposite the town of Danubyu. It possesses a small rice mill and is also a busy paddy trading centre. Its inhabitants are mostly engaged in agriculture but the women folk generally do a little mat-weaving in their spare time. In 1921 it had 331 houses with a population of 1,761 persons.

Samalauk. A large village of 495 houses on the southern bank of the Panhlaing River, about six miles south-east of Yandoon. It is a busy paddy loading centre and in 1921 it had a population of 2,440 persons.

Mezali. A village of 394 houses situated at the junction of the Panhlaing with the Kokkowa River. It is a paddy trading centre. In 1921 it had a population of 1,100 persons. It possesses a small police outpost.

Kattiya. A small village on the eastern border of the district. It lies on the western bank of the Panhlaing River, just three miles east of the place where the Padhlaing has completely silted up. It has well laid brick paths and shows signs of having been established since Burmese times. It forms the terminus of a daily service of launches run by the Irrawaddy Flotilla Company between Rangoon and Kattiya. It has an old Pagoda known as Pagapit, said to have been built in the third century before Christ by Tissa and his brother Cunda, two emissaries of Asoka. In 1921 it had 161 houses with a population of 771. Before the Panhlaing route to Yandoon was closed it was a busy trading centre with a population of more than three times the present number.

Gangyaung. A large village about ten miles south-west of Yandoon on the left bank of the Irrawaddy river. It is an important paddy trading centre. In 1921 it had 362 houses with a population of 2,047.

The Danubyu township occupies the north-western corner of the district. The township is divided into two parts by the Irrawaddy river. The eastern portion which lies on the left bank of the Irrawaddy occupies about one-fifth of the total area of the township. Both parts are protected from floods by Government embankments, the one on the western bank being a continuation of the main embankment from Myanaung southwards while the one on the eastern bank is a continuation of the embankment from Apyauk in the Henzada district. The township is therefore fully protected from the direct effects of the annual floods in the Irrawaddy and a fairly good crop is obtained every year. The interior of the township is, however, much water-logged, and only flood resisting varieties of paddy like the tadaungbo kind can be grown. In the area lying close to the Government embankments, the people are well off owing to the certainty of a good crop every year, but elsewhere there is much poverty. Villages are generally built of the poorest materials, such as bamboo and thatch, and a lower standard of living seems to prevail in most of the interior villages. Except on the islands in the Irrawaddy river, the whole of the township is cultivated with rice. The township is densely populated, its density being 300 persons to the square mile, which is the highest in the district. Its population at the last three censuses was :—1901, 85,033 ; 1911, 91,893 and 1921, 87,240. In 1928, it had a gross area of 290 spuare miles and an occupied area of 138,134 acres. There are 271 *kwins* and 81 village-tracts. **Danubyu Township.**

Danubyu, the headquarters of the township of the same name, had a population of 4,860 at the census of 1921. In 1911 the population was 7,695. The town is fairly prosperous in spite of the decrease in population. There was a *myothugyi* at this place in the time of the Burmese kings. There is in the town a famous pagoda called the Kyaik-kalunpun said to have been built by the Talaing Princess Onmadandi. **Danubyu.**

It is an important centre for the paddy trade, a large quantity of grain from the interior of the district being loaded here into *tonkins*. Cigar-making seems to be a fairly prosperous industry with the inhabitants. A number of people make their living by the manufacture of carts. The weaving of mats called " thinbyus " seems to give employment to many.

The place is of historical interest in that it was here that the famous Burmese General, Maha-Bandula met his

heroic death. A monument bearing a tablet inscribed to his memory has been erected at the place where he fell, struck by a splinter from a bomb shell.

Akyaw. A large village 5 miles due west of Danubyu on the metalled road connecting Danubyu with Kyontani. Its inhabitants are mostly agriculturists. In 1921 it had 270 houses with a population of 1,587. It possesses a small rest-house for the use of travellers.

Kyontani. A village situated 14½ miles west of Danubyu on the metalled road connecting the latter place with Kyonpyaw in the Bassein district. It lies on the extreme western border of the township. It is an important paddy loading centre and in 1921 it had 225 houses with a population of 1,174 persons. Its inhabitants are mostly agriculturists. It possesses a small rest-house maintained by the Public Works Departmeut.

Setkaw. A large village opposite the town of Yandoon on the right bank of the Irrawaddy river. In 1921 it had 640 houses with a population of 2,971. Its inhabitants are mostly agriculturists. Pottery-making gives employment to a small number of people. The making of fishing nets forms a subsidiary occupation to many of its inhabitants and a considerable number of agriculturists are engaged on this industry during the dry months of the year.

Sagagyi. A small town on the eastern bank of the Irrawaddy river, about six miles to the north of Danubyu. It forms the principal market centre of the villages in the neighbourhood. There is a Post and Telegraph Office and a rest-house maintained by the Public Works Department. The town possesses electric lights and a good bazaar. In 1921 there were 621 houses with a population of 3,294 persons.

Famous Pagodas The Shwemyindin pagoda at Pantanaw is in the custody of *payalugyis*, and is in a good state of preservation. It is said to have been built in the tenth century after Christ by Kosana, a prince of Ceylon, who came on a journey to Bassein to sue for the hand of Princess Onmadandi, whose fame for beauty had travelled even to that island. At the spot where he received the unwelcome news of his having been forestalled by another suitor (Nagayi Mintha), he built the pagoda to commemorate the disappointment of his hopes. It is said to have been enlarged on his accession to the throne of Ceylon.

The Pagayit pagoda at Kattiya in the Yandoon Township is in the custody of the villagers, and is in a fair state of preservation.

It is said to have been built in the third century before Christ by Tissa and his brother Cunda, emissaries of Asoka, over twenty-one corporeal relics of the Buddha, under the name of " Thetkyamuni-shwe-yit-tan ". In the eleventh century after Christ, it is said Kyanzittha arrived at the pagoda and made two frogs of gold weighing seventy-five ticals. Looking in the direction of the pagoda, he prayed that the frogs might croak thrice if he were to become king. They did so; hence the name " Pagayit ". The Kyaik-kalun-pun pagoda at Danubyu is in the custody of *payalugyis* and is in a good state of preservation.

It is said to have been built in 1386 A.D. by Dhanuka, son of the king of Bassein, over some hairs of Gotama Buddha, on the site where the Buddhisat had his abode when once he was born as a peacock.

Maha Bandula Min.

The following account of the last fight of Maha Bandula against the British and of the erection of a memorial to him at Danubyu in 1918 on the spot where he fell is taken from the Annual Archealogical Report for 1917-18.

U Yit, the *Wun* or Governor of Tabayin, who is known in Burmese history as Bandula or Maha Bandula was a striking and stimulating personality, who possessed commanding military genius. Bagyidaw (1819-1837) had inherited from his grandfather and predecessor, Bodawpaya (1781-1819), a legacy of friction and unfriendliness with the East India Company and Bandhula was specially selected to stem the tide of British invasion. He served with distinction and comparative success in Assam and Arakan, and was latterly transferred to the Irrawaddy Delta, with head quarters at Danubyu, because the British had sent a fresh expedition up the Irrawaddy river to menace Ava, the capital of Burma, which, in the eyes of the Burmans, should be kept secluded, sacred, and inviolate. The British had sea power on their side, and they could simultaneously attack several parts of the Burmese Kingdom, especially its extensive sea-cost Moreover, their superior discipline, organization, and artillery told in their favour. They were defective only in their transport arrangements, in their experience of tropical warfare, and in their not being acclimatized to the torrid heat of the rice plains of Lower Burma. The Burmese Generalissimo, Bandhula, was perfectly aware of these circumstances, and from the moment of this arrival at Danubyu, he realized that he was playing a losing game. On the 1st April 1825 he moved about conspicuously in his camp with a golden umbrella spread over his head, ostentatiously giving orders.

His captains earnestly begged of him to close down his umbrella and seek a place of safety because they felt that his life, like that of Lord Kitchener's, was worth more than an army corps. But he indignantly refused to comply with their request although British bomb shells continued to fall fast and furious around him. He said, in reply, that the British were bound to win in the war, and that, if he sacrificed his own life, which was not of much value, the enemy would say that the Burmese Army was beaten, not for want of valour or power of resistance, but owing to the death of its Commander. He added that by such means, the prestige of their King and country would be saved, and that Burmese supremacy would still be acknowledged by the neighbouring Indo-Chinese nations. How wise, brave, and inspiring are these words of Bandhula, who sacrificed himself most voluntarily on the altar of patriotism. His memory is still kept green by the Burmans, while the chain armour he wore, before he was blown into atoms by the British bomb shells on that faithful morning of the 1st April 1825, is still preserved with tender care in the Tower of London.

Major A. S. B. Roberts, I.A., now Battalion Commandant at Bhamo, was Deputy Commissioner of Maubin in 1913, and he prevailed upon the local elders of Danubyu headed by U San Gauk and Maung Myit to raise a public subscription and put up a memorial stone pillar on the spot where Maha Bandula fell. Owing to the outbreak of the European War, a considerable delay ensued, and the work was not completed till the 7th February 1918. The following incriptions, in English and Burmese, have been engraved on the tablet:—

"Maha Bandhula Min was struck by a piece of shell *bonzan* on 1st April 1825 and was mortally injured dying almost immediately."

ခရစ်သက္ကရာဇ် ၁၈၂၅ ခုနှစ်။ဧပြီလ ၁ ရက်နေ့တွင်။ မဟာဗန္ဓုလစစ်သူကြီးသည်။ ရန်သူလက်နက်ဗုံးဆံချက်ကြောင့်။ မကြာတခဏ။ ဤဌာန၌။ အနိစ္စသဘောသို့ရောက်လေသည်။

The spot for the location of the memorial was ascertained by Major Roberts after local enquiries and after consulting the map of the Danubyu fort contained in "Two years in Ava" by Captain T. A. Trant of the 95th, which was published in 1827.

GLOSSARY OF VERNACULAR NAMES.

Ahlu—a charitable offering.
Akaungsa—the good or best class.
Alatsa—the middling class.
Anyansa—the poor or worst class.
Beda—the water hyacinth weed.
Dahset—an agricultural implement consisting of a revolving cylindrical pole of wood set with iron blades to cut up grass and clods of earth.
Chaung—a stream or rivulet.
Dhani—Nipata fructens—a kind of palm.
Hlainggauk—a form of payment for reaping at a fixed proportion of the number of sheaves of paddy reaped.
Hingyo—a kind of vegetable soup.
Kaing—Dry weather cultivation on alluvial formations.
Kaukkyi—the main winter crop of paddy, also applied to the late maturing variety of paddy.
Kauklat—autumn rice or the early maturing kind of paddy.
Kon—high ground.
Kazin—a field bund.
Kaingyo—a kind of reed growing in marshy places.
Lettet—a tributary stream.
Myeyin—permanent island formation.
Myenu—impermanent alluvial soil.
Mayin—hot weather irrigated paddy.
Myinwunsè—a screened obstruction across a streem with a sloping chute at one end to catch the fish.
Micha—fixing of iron tyres to cartwheel.
Mogaung—unirrigated upland paddy depending entirely on rainfall
Ngapi—a kind of fish paste.
Nauklaik—junior ploughman.
Pwè—a musical entertainment.
Pyobaw or pyosok—a bundle of seedlings of the paddy plant.
Pyi—a Burmese measure—the sixteenth part of a basket of nine gallons capacity.
Pindaing—a whole time labourer engaged by the season.
Pyanpe—anything held to ranson.
Sabape—a money loan—the principal and interest being repayable in paddy.
Shinpyu—the novitiate ceremony of the Buddhist priesthood.
Setton—the clod cutter, see dahset.
Seyo—the pounded root of the tobacco plant.
Thetkè—a kind of grass used for thatching purposes.
Taman—a dam of earth thrown across a stream.
Thein—a consecrated piece of ground for the initiation of Buddhist monks.
Tonkin—a large boat for the conveyance of paddy.
Tazaung—a shrine or chapel having images of Buddha.
Thin—Clinogyne Dichotama—a kind of reed plant.
Wunsa—paddy stored for home consumption.
Ya—upland dry cultivation.
Yinsè—screens of split bamboos placed across a stream.

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INDEX.

A

B

C

D

D—concld.

E

F

G

H

I

J

K

L

M

N

O

P

Q

Nil.

R

T

U

Nil.

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